

**DEPARTMENT OF TRANSPORTATION**

**NOTICE TO CONTRACTORS,  
PROPOSAL, SPECIAL PROVISIONS,  
CONTRACT AND CONTRACT BOND  
FOR**

**PCC RESURFACING**

**FEDERAL**

**PROJECT NO. NH 0012(160)298  
(PCN 023C)**

**US HIGHWAY 12**

**IN BROWN COUNTY**

## **NOTICE TO ALL BIDDERS**

### **TO REPORT BID RIGGING ACTIVITIES, CALL: 1-800-424-9071**

THE U.S. DEPARTMENT OF TRANSPORTATION (DOT) OPERATES THE ABOVE TOLL-FREE "HOTLINE" MONDAY THROUGH FRIDAY, 8:00 A.M. TO 5:00 P.M., EASTERN TIME. ANYONE WITH KNOWLEDGE OF POSSIBLE BID RIGGING, BIDDER COLLUSION, OR OTHER FRAUDULENT ACTIVITIES SHOULD USE THE "HOTLINE" TO REPORT SUCH ACTIVITIES.

THE "HOTLINE" IS PART OF THE DOT'S CONTINUING EFFORT TO IDENTIFY AND INVESTIGATE HIGHWAY CONSTRUCTION CONTRACT FRAUD AND ABUSE AND IS OPERATED UNDER THE DIRECTION OF THE DOT INSPECTOR GENERAL.

ALL INFORMATION WILL BE TREATED CONFIDENTIALLY AND CALLER ANONYMITY WILL BE RESPECTED.

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### **PLANS, PROPOSALS AND ADDENDA**

AFTER AWARD OF CONTRACT, THE LOW BIDDER WILL RECEIVE TEN (10) COMPLIMENTARY SETS OF PLANS, PROPOSALS, AND ADDENDA FOR FIELD AND OFFICE USE. AN ELECTRONIC COPY WILL ALSO BE PROVIDED. ANY ADDITIONAL COPIES REQUIRED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

\* \* \* \*

## NOTICE TO CONTRACTORS

Electronic Bids for this project will be received by the South Dakota Department of Transportation (SDDOT) via the SDDOT secure bid submission site at <http://apps.sd.gov/applications/hc65c2c/BidLettingNET/bidsubmittallogin.aspx> until 10 A.M. Central time, on April 4, 2012, at which time the SDDOT will open bids. All bids will be checked for qualifications with results posted on the SDDOT website. The South Dakota Transportation Commission will consider all bids at a scheduled Commission meeting.

The work for which proposals are hereby requested is to be completed: **ON OR BEFORE OCTOBER 12, 2012.**

The DBE goal for this project is: **2%**.

Work Type for this project is: **Work Type B.**

All proposals shall be prepared and submitted accordance with the Special Provision of Electronic Bidding Requirements. Any proposal otherwise submitted will be deemed informal, irregular and not subject to or worthy of consideration in the award of the contract.

Plans, specifications for the work may be obtained at:  
<http://apps.sd.gov/applications/hc65c2c/BidLettingNET/ebslettings.aspx>

Specifications for the work are the Standard Specifications for Roads and Bridges, most recent edition. An electronic version of the Standard Specifications for Roads and Bridges may be obtained at <http://www.sddot.com/Operations/specifications/index2004.htm>

The electronic bid proposal must be submitted by a valid bidder as designated on the [Bidding Authorization Form](#). The Bidder ID and Password, coupled with a previously Department assigned Company ID, will serve as authentication that an individual is a valid bidder and will assure the secure electronic delivery of bid proposals to the Department. This authorization shall remain in full force and effect until written notice of termination of this authorization is sent by an Officer of the company and received by the Department.

No proposal will be considered unless a guaranty in amount of five percent of the total amount of the bid is secured by the Contractor and received by the Department with the bid or prior to opening of the bids. Satisfactory proposal guaranties include certified checks, cashier's checks, bank drafts issued upon a National or State Bank, or a bid bond issued in accordance with the laws of South Dakota. If electronic bid bonds are used, the Contractor is required to submit the bid bond identification number with the Contractor's bid. Unless otherwise specified in the proposal book, the proposal guaranty shall be made payable at sight to the Department of Transportation, State of South Dakota.

The South Dakota Transportation Commission reserves the right to reject any or all Proposals.



SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION, STATE OF SOUTH DAKOTA:

Ladies / Gentlemen:

The following proposal is made on behalf of the undersigned and no others. It is in all respects fair and is made without collusion on the part of any other person, firm or corporation not appearing in the signature to this proposal.

The undersigned certifies that she / he has carefully examined the plans listed herein, the Specifications hereinbefore referred to, the Special Provisions and the form of contract, both of which are attached hereto. The undersigned further certifies that she / he has personally inspected the actual location of the work, together with the local sources of supply and that she / he understands the conditions under which the work is to be performed, or, that if she / he has not so inspected the actual location of the work, that she / he waives all right to plea any misunderstanding regarding the location of the work or the conditions peculiar to the same.

On the basis of the plans, Specifications, Special Provisions and form of contract proposed for use, the undersigned proposes to furnish all necessary machinery, tools, apparatus and other means of construction, to do all the work and furnish all the materials in the manner specified, to finish the entire project **ON OR BEFORE OCTOBER 12, 2012** and to accept as full compensation therefore the amount of the summation of the products of the actual quantities, as finally determined, multiplied by the unit prices bid.

The undersigned understands that the quantities as shown in the Bid Schedule are subject to increase or decrease, and hereby proposes to perform all quantities of work, as increased or decreased, in accordance with the provisions of the specifications, and subject to any applicable special provisions, and at the unit prices bid.

The undersigned understands that the "Total or Gross Amount Bid" as immediately hereinbefore set forth is not the final amount which will be paid if this proposal is accepted and the work done, but that such amount is computed for the purpose of comparison of the bids submitted and the determination of the amount of the contract bond.

The undersigned further proposes to perform all extra work that may be required on the basis provided in the specifications, and to give such work personal attention in order to see that it is economically performed.

The undersigned further proposes to both execute the contract agreement and to furnish a satisfactory contract bond, in accordance with the terms of the specifications, within twenty (20) days after the receipt of notice from the South Dakota Department of Transportation that this proposal has been accepted.



## CERTIFICATION REGARDING LOBBYING

I certify, to the best of my knowledge and belief, that: No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement. If any funds other than Federal appropriated funds have been paid or will be paid to any of the above mentioned parties, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty or not less than \$10,000 and not more than \$100,000 for each such failure.





**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**EXCERPTS FROM ADMINISTRATIVE RULES REGARDING  
DIFFERING SITE CONDITIONS PROVIDED FOR INFORMATIONAL PURPOSES**

June 10, 1997

70:01:05.01:01. Definitions. Words used in this chapter have the following meaning.

(6) "Differing site condition," a subsurface or latent physical condition encountered on the project which differs materially from that indicated in the contract or an unknown physical condition of an unusual nature which differs materially from that ordinarily encountered and generally recognized as inherent in the work provided for in the contract.

70:01:05.01:02. Examination of plans, specifications, special provisions, and site of work. The bidder shall examine the project site, proposal, plans, specifications, supplemental specifications, special provisions, and contract form for the work contemplated. The submission of a proposal is considered conclusive evidence that the bidder has investigated the conditions to be encountered, the character, quality, and quantities of work to be performed, and the materials to be furnished, according to all contract documents.

The Department is not contractually bound by any statement or representation concerning conditions made by any of its employees or agents prior to the execution of the contract, unless they are included in the proposal form, plans, specifications, supplemental specifications, special provisions, or related contract documents.

Boring logs and other records of subsurface investigations are available for inspection by bidders. Such information was obtained for and is intended for state design and estimating purposes. The Department does not guarantee the accuracy of the information. It is made available in order that all bidders may have access to identical subsurface information available to the Department. It is not intended as a substitute for personal investigation, interpretations or judgment of the bidders.

A bidder shall request any explanation he desires regarding the meaning or interpretation of the proposal form, plans, and specifications in sufficient time to allow a reply to reach all bidders before submission of their bid proposal. The Department shall make an interpretation in the form of an addendum to the proposal form and shall furnish it to all prospective bidders by certified letter, or return receipt by FAX, before the time set for opening of proposals. Oral explanations or instructions given before the award of the contract are not binding on the Department.

70:01:05.01:02.01. Differing site conditions. If a differing site condition is encountered at the project by the Department during the progress of the work, the engineer shall immediately notify the contractor in writing of the specific differing condition before it is disturbed and before affected work is performed. If a differing site condition is encountered at the project by the contractor, the contractor shall immediately notify the engineer in writing of the specific differing condition before it is disturbed and before affected work is performed.

After discovering a differing site condition and notifying the contractor or after being notified by the contractor of a differing site condition, the engineer shall investigate the condition. If the engineer determines that the condition materially differs and causes an increase or decrease in the cost or time required for the performance of any work under the contract, the engineer shall make an adjustment, excluding loss of anticipated profits, and modify the contract in writing accordingly. The engineer shall notify the contractor of his determination whether or not an adjustment of the contract is warranted.

A contract adjustment which results in a benefit to the contractor may not be allowed unless the contractor has provided the required written notice.

A contract adjustment may not be allowed under this section for any effects caused on unchanged work.

This section does not apply to material sources shown on the plans and as defined in Section 6 of the Standard Specifications for Roads and Bridges, most recent edition.

\* \* \* \*



REV. 1/31/12

SPECIAL PROVISIONS

PROJECT NUMBER(S): NH 0012(160)298 PCN: 023C

TYPE OF WORK: PCC RESURFACING

COUNTY: BROWN

The following clauses have been prepared subsequent to the Standard Specifications for Roads and Bridges and refer only to the above described improvement, for which the following Proposal is made. In case of any discrepancy or conflict between said specifications and these Special Provisions, the latter are to govern.

The Contractor's attention is directed to the need for securing from the Department of Environment & Natural Resources, Foss Building, Pierre, South Dakota, permission to remove water from public sources (lakes, rivers, streams, etc.). The Contractor should make his request as early as possible after receiving his contract, and insofar as possible at least 30 days prior to the date that the water is to be used.

Dan Thielsen is the official in charge of the Aberdeen Career Center for Brown County.

**THE FOLLOWING ITEMS ARE INCLUDED IN THIS PROPOSAL FORM:**

Excerpts from Administrative Rules Regarding Differing Site Conditions, Provided for Informational Purposes, dated June 10, 1997.

**Special Provision for Cost + Time Bidding Procedure, dated 2/29/12.**

**Special Provision for On-The-Job Training Program, dated 4/1/02.**

**Special Provision Regarding Section of the Clean Water Act, dated 3/5/12.**

**Fact Sheet #23.**

**Special Provision Regarding Railroad Insurance Requirements, dated 2/24/12.**

NOTE: The contractor WILL NOT be granted permission to proceed with any work on Railroad Right-of-Way until he has been notified by the Railroad that his insurance has been approved and the insurances and certificates has been provided to the SDDOT Area Office.

**Special Provision For Working on Railroad Property, dated 2/24/12.**

**Special Provision for Contractor Furnished Mix Designs for PCC Pavement, dated 11/17/11.**

**Special Provision for Two Coat Epoxy Bridge Deck Chip Seal, dated 1/31/11.**

**Special Provision for Approach Slab Underdrain System, dated 2/27/12.**

**Special Provision for Durable Pavement Markings, dated 6/27/11.**

**Special Provision for Portland Cement Concrete Pavement Overlay (Thick), dated 2/13/12.**

**Special Provision for Contractor Staking, dated 2/27/12.**

Special Provision for Electronic Bidding Requirements, dated 8/9/11.

Special Provision for Fuel Cost Adjustment, dated 7/13/06.

Special Provision for Suspension of Work, dated 2/13/04.

Standard Title VI Assurance, dated 7/14/08.

Special Provision For Disadvantaged Business Enterprise, dated 12/21/11.

Special Provision For EEO Affirmative Action Requirements on Federal and Federal-aid Construction Contracts, dated 9/1/97.

Special Provision For Required Contract Provisions Federal-aid Construction Contracts, Form FHWA 1273 (Rev. 3/10/94), dated 1/6/09.

Required Contract Provisions Federal-aid Construction Contracts, Form FHWA 1273 (Rev. 3/10/94).

Special Provision Regarding Minimum Wage on Federal-Aid Projects, dated 5/10/10.

Wage and Hour Division US Department of Labor Washington DC.

- US Dept. of Labor Decision Number SD100010, dated 10/28/11.

Supplemental Specification for Errata, dated 3/3/10.

Supplemental Specification to Standard Specifications for Roads and Bridges, dated 3/3/10.

Special Provision for Price Schedule for Miscellaneous Items, dated 11/17/11.

Special Provision Regarding Storm Water Discharge, dated 9/10/03.

General Permit for Storm Water Discharges Associated with Construction

Activities, dated 2/1/10. <http://denr.sd.gov/des/sw/Permits/ConstructionGeneralPermit2010.pdf>

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
COST + TIME BIDDING PROCEDURE**

**PROJECT NH 0012(160)298, PCN 023C  
BROWN COUNTY**

**FEBRUARY 29, 2012**

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The overall completion date for the project is October 12, 2012.

**A. General**

The Department will use a Cost + Time Bidding Procedure to select the bidder that will be awarded the contract for this project. The selection process will take into account the price offering and the time in which the Contractor proposes to substantially complete the project.

There is a 75 working day maximum amount of time for construction of the project. The day count for the working day closure period will begin when traffic is switched from the westbound lanes to the eastbound lanes in a two lane two way traffic configuration. The Contractor will be able to begin work following the date of the Notice to Proceed but will not be able to place westbound and eastbound traffic in the eastbound lanes in a two lane two way traffic configuration prior to May 29, 2012. The working day count will stop when unimpeded traffic is placed back onto the full roadway and the Project Engineer considers the project substantially complete.

The Contractor shall comply with all plan notes relating to the maintenance of traffic and detour signing in regards to this provision.

The project will be considered substantially complete and the working day count will stop when all of the following have occurred:

1. All lanes of traffic are opened and traffic can move unimpeded through the project at the posted speed. This shall include PCC overlay, bridge repair, guardrail, signing, seeding, mulching, and necessary erosion controls.

2. The only work left for completion is incidental, away from the surfaced portion of the highway, and does not affect the safety or convenience of the traveling public.

The decision of when the project is substantially complete will be solely at the discretion of the Engineer. The determination of a working day will also be at the sole discretion of the Engineer.

## **B. Preparation of Proposal**

The bidder shall submit a completed proposal consisting of two parts. Part A will be the total dollar amount of the contract unit prices in the Bid Schedule. Part B will be the number of working days that the Bidder proposes to substantially complete the project multiplied by the Daily User Cost.

The bidder shall enter the number of working days in the proposal. The number of working days shall not exceed 75 working days or the bid will be considered non-responsive and the bid will be rejected. If the Contractor leaves the number of working days blank or inserts a zero or negative quantity, the Department will consider the bid proposal to be non-responsive.

The successful bid will be the lowest combined sum of Parts A and B. The Department will award the contract in the amount from Part A of the bid. The contract time will be the working day period proposed by the Contractor and the overall completion requirement.

## **C. Consideration of Proposals**

After the proposals are opened and read they will be compared based on the following:

Each Bid submitted shall consist of two parts:

A = The total dollar amount for all of the unit price items of work to be performed under this proposal.

B = The total number of working days proposed by the Bidder to substantially complete the project multiplied by the Daily User Cost.

The Daily User Cost for this project will be \$2,700 per working day.

The successful bid will then be determined by the lowest combined sum of parts A and B according to the following formula:

$A + B = \text{Bid Amount for evaluation purposes.}$

The Department will make the contract award in the amount bid for Part A. The Contractor will be required to bond (proposal guarantee and performance bond) only Part A of the bid.

The contract time will be the working day period proposed by the Contractor in part B of the bid and the overall completion requirement.

#### **D. Early Opening of the Project with Incentive**

The Department seeks to accelerate the project by offering an incentive to the Contractor. The Department will make an incentive payment of \$2,700 per working day to the contract for each working day that the Contractor substantially completes the work before the contract time limit bid for the project. The maximum incentive for the project is \$2,700.

#### **E. Failure to Complete on Time**

If the Contractor fails to complete the work within the contract time (Part B) as bid, the Department will deduct \$2,700 and liquidated damages according to Section 8.7 of the Standard Specification from the contract for each working day that the work (project) is late until the Contractor has substantially completed the work. The Contractor will lose all incentive that has been accumulated if the working day closure period is not completed by the overall completion date and will be assessed \$2,700 plus liquidated damages for each working day until the project is substantially complete.

In addition to the above requirements, the Department will also assess liquidated damages for each working day that the Contractor fails to meet the overall completion date of Month Day, Year. Liquidated damages will be assessed according to Section 8.7 of the Standard Specifications.

#### **F. Extension**

Extensions of contract time will only be given for extraordinary circumstances that substantially impact the critical items of work and will not be allowed on a monetary basis for overruns or added work. Time extensions will only be made when the Contractor can document a delay to the critical items and justify a time extension request due to changes made by the Department. No incentive payment will be made for extensions of the contract time beyond the overall completion date. Time extensions will not change the overall completion date but will reduce the number of days assessed following the overall completion dates.

#### **G. Expected Adverse Weather Days**

Attachment 1 is provided for information purposes only as a guide to bidders. The table is based on historical records and it depicts the typical number of adverse

weather days that can be expected for any given month. The project is considered to be a surfacing project in Zone 5.

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# ATTACHMENT 1

Figure A. Expected Adverse Weather Days for South Dakota

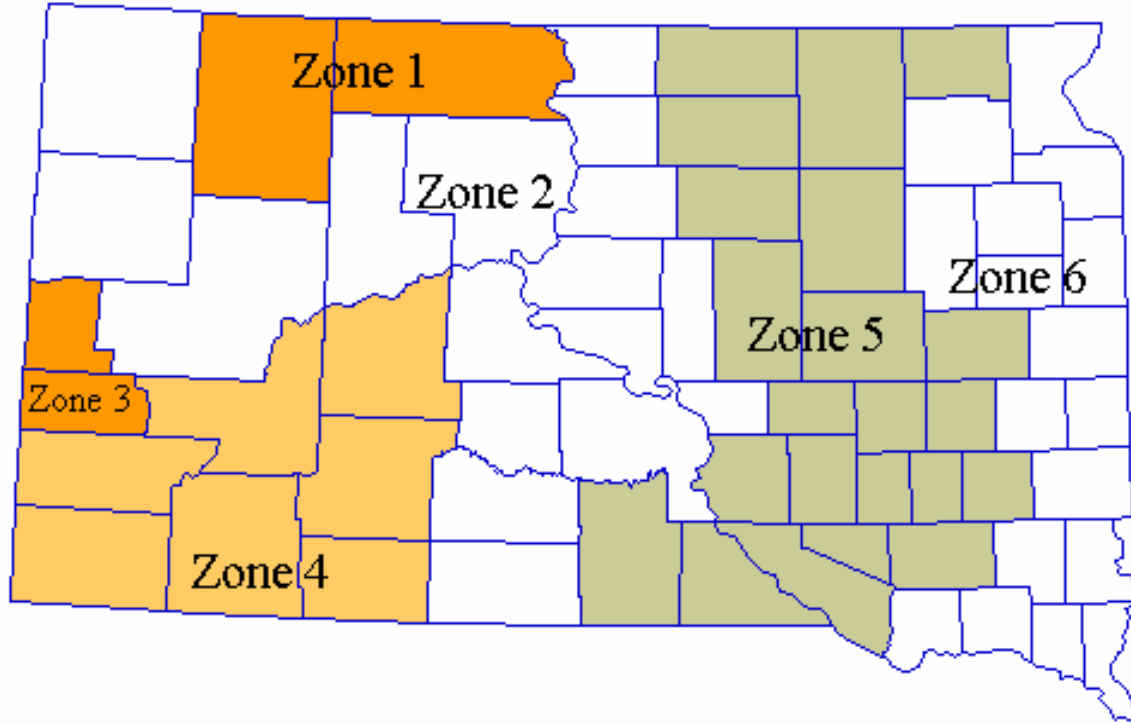


Table 1. Expected Adverse Weather Days for South Dakota

	Grading Projects						Surfacing and Structural Projects					
	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
Jan	18	18	16	16	22	24	18	18	15	16	21	23
Feb	19	18	12	14	19	21	19	18	12	14	19	21
Mar	12	10	9	8	11	13	12	10	9	8	10	12
Apr	6	5	8	5	6	6	5	4	6	4	4	4
May	6	6	8	6	6	6	5	5	6	4	4	5
Jun	7	6	7	6	7	8	5	5	5	4	5	6
Jul	5	5	6	5	6	7	4	4	5	3	4	5
Aug	4	4	5	4	5	6	3	3	4	3	4	4
Sep	3	3	4	3	4	5	2	2	3	2	3	4
Oct	4	3	5	3	4	4	3	3	4	2	3	3
Nov	11	9	8	7	10	12	11	9	8	7	10	11
Dec	21	19	15	14	20	22	21	19	15	14	20	22

NOTE: Includes Holidays and Weekends.



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR  
ON-THE-JOB TRAINING PROGRAM**

**April 1, 2002**

This Training Special Provision supersedes Part II, Nondiscrimination, Section 6, Training and Promotion, paragraphs "a" through "d" on Page 3 of the Required Contract Provisions Federal-Aid Construction Contracts (Form FHWA 1273 – Rev. 3/10/94).

**PURPOSE**

The purpose of the On-the-Job Training (OJT) Program is to provide training for minority, female and economically disadvantaged individuals, hereinafter known as the targeted group, in order that they may develop marketable skills and gain journeyworker status in the skilled craft classifications in which they are being trained.

**INTRODUCTION**

Successful operation of the OJT program requires that contractors follow uniform and basic procedures in training, keeping records of trainee progress toward journeyworker status, and reporting each trainee's successful completion or termination from the program.

The bidder's signature on the proposal sheet indicates the bidder agrees to participate in the OJT Program and to abide by the provisions of this OJT Program Special Provision.

**SELECTION OF TRAINING PROGRAM**

- A. The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the South Dakota Department of Transportation (Department or SDDOT) and the Federal Highway Administration (FHWA).
- B. The Department and FHWA have currently approved one OJT program for use in South Dakota and that is the OJT program designed and implemented by Associated General Contractors (A.G.C.) of South Dakota; Highway, Heavy, Utilities Chapter. The department has assumed the administration functions of the A.G.C. Training program. The OJT Program previously used by the Department of Transportation is no longer available but any trainee who has begun training in 1997 under the Department program will be allowed to complete that program.
- C. There may be other training programs which some Contractors might wish to utilize. If the Contractor intends to use such a program to meet the OJT requirements on a federal-aid contract with training requirements, approval or acceptance of such program shall be obtained from the Department and FHWA **prior** to beginning training on any classification covered by that program.

It is the intention of these provisions that training is to be provided in the construction crafts rather than administrative support type positions or lower level management positions. Training for semi-skilled laborer classifications is discouraged but may be permitted provided that significant and meaningful training is provided and prior approval is obtained by the Department Civil Rights Office and the FHWA Division office.

## **RECRUITMENT AND SELECTION PROCEDURES**

### A. Prerequisite for Trainees

1. To be qualified for enrollment in the OJT Program, a trainee applicant must be a member of one of the targeted groups (unless an alternate selection is authorized by the Department), must possess basic physical fitness for the work to be performed, should have demonstrated qualities of dependability, willingness to learn, ability to understand and follow instructions and an aptitude to maintain a safe work environment.
2. No person shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyworker status or in which he has been employed as a journeyworker. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

### B. Licenses

Truck driver trainees must possess appropriate driver permits or licenses for the operation of Class A, B, and C trucks. When an instructional permit is used in lieu of a license, the trainee must be accompanied by an operator who:

1. Holds a license corresponding to the vehicle being operated;
2. Has had at least one year of driving experience; and
3. Is occupying the seat next to the driver trainee.

### C. Recruitment

1. Notices and posters setting forth the Contractor's Equal Employment Opportunity Policy and the availability of training programs will be placed in areas readily accessible to employees, applicants for employment and potential employees.
2. Training and upgrading of minorities, women, and socially and economically disadvantaged persons toward journeyworker status is the primary objective of this Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees, women and disadvantaged persons (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and female applicants) to the extent that such persons are available within a reasonable area of recruitment.
3. Full consideration will be given to upgrading current minority and female employees.

D. Selection

1. The selection and employment of an eligible person by a participating Contractor, in accord with the above Parts A, B, and C, shall qualify the person of the OJT Program.
2. Employment of trainees will be in accordance with the work force requirements of the Contractor. Each Contractor will hire and train the trainees for use in his own organization.
3. Contractors **must** follow the registration procedures as set out for the South Dakota Department of Transportation. An original registration form must be sent to the Department Civil Rights Office for review and approval. In the event that the Department OJT Registration Form(s) are not received by the Civil Rights Office within two weeks of the date the contractor begins significant work on the project, progress payments will be suspended. This suspension will be lifted upon receipt and approval of the form(s).
4. To be acceptable as an economically disadvantaged trainee, the applicant must meet current disadvantaged guidelines (relative to employment and income) as set out by the United States Department of Labor. These guidelines are available from South Dakota One-Stop Career Centers and contractors must provide the necessary documentation, i.e. application information, to support an OJT registration from a disadvantaged candidate. This documentation must be provided to the Civil Rights office with the other required information as a part of the approval process for trainees.
5. The Department expects that Contractors will employ minority, female, and disadvantaged persons for all trainee positions assigned through this OJT Special Provision unless such persons are not available within a reasonable area of recruitment. The Civil Rights office will withhold approval of any trainee who is not a member of one of the targeted groups unless the Contractor can demonstrate that he has made a good faith effort to recruit and select a minority, female, or economically disadvantaged person and, for reasons beyond his control, was unable to do so.

**DEPARTMENT RESPONSIBILITIES**

The Department (Civil Rights office):

- A. Will monitor Contractor payrolls and OJT reports for payment of correct wage rates and for evidence of providing a continuing instructional process. The Civil Rights office will maintain records of Contractor participation in the program; names, and training classifications of trainees and other information necessary to assess program participation and results.
- B. Will assist contractor's with trainee recruitment, will encourage minority/female recruitment sources to refer suitable applicants, and will monitor Contractor instructional efforts and record keeping.

## **CONTRACTOR RESPONSIBILITIES**

The Contractor:

- A. Will furnish the trainee a copy of the training program to be followed in providing the training and will provide each trainee graduate with a certificate showing the type of training satisfactorily completed.
- B. Will identify all trainees on the registration forms, training reports and project payroll by proper classification title, (see either Department Contractor's EEO/OJT Manual or A.G.C. program booklets) e.g. *heavy duty mechanic, form builder*, etc. **Do not use** coding letters/numbers from the wage scale. On payrolls, contractors must include the designation "trainee" following the job classification title.
- C. Will assign each trainee to a particular person – either a supervisor or an employee proficient in the skill – who shall see that timely, instructional experience is received by the trainee. This person, in cooperation with the Contractor EEO Officer, will ensure that the program is explained and reviewed with the prospective trainee including training outline and the periodic wage adjustments, that required training hours are completed in accordance with the training curriculum, that proper records are kept, and that required reports are filed with the Department.
- D. Will provide a monthly training report to the Department Civil Rights office within thirty (30) days of the last full pay period of the month on the form supplied by the Department and will use this same form to promptly notify the Department (within thirty days) whenever a trainee leaves the OJT program (voluntarily or involuntarily) or when a trainee completes the program.
- E. Will pay not less than the minimum wage rates as set forth in the specific requirements of the applicable training program and as noted on the copy of the registration form returned to the contractor.

## **PROVISIONS APPLICABLE TO A.G.C. OJT PROGRAM**

- A. The minimum number of hours of training to be provided **on this project** are as specified in the bid documents. The Contractor shall select whatever training classification specified in the A.G.C. program best meet his employment needs and training hours and minimum wage shall be in accord with that classification.
- B. Registration and reporting requirements shall be as set forth in the program documents and instructions and this provision.
- C. Contractors using the A.G.C. program may meet the training obligations by either 1) enrolling a new trainee in one of the classifications, or 2) using a trainee currently enrolled in one of the A.G.C. classifications, provided that person has sufficient training hours remaining to meet the minimum project requirements as specified in bid documents. In either case, prospective trainees must meet the program requirements as set forth in "Recruitment and Selection Procedures" above.
- D. Effective March 1, 2002, the department will be responsible for long term maintenance of records regarding trainee registration in various training classifications and for total trainee hours as provided by one or more contractors.

## **WAGE RATES**

- A. Minimum wage rates shall be in accord with program requirements for each classification and trainee placement within the training hours requirement. In no case shall the minimum wage be less than the common laborer classification of the applicable wage rate information contained in the bid documents. Where applicable, trainees shall be paid full fringe benefit amounts.
- B. At the completion of the OJT program, the trainee shall receive the wages of a skilled journeyworker for that specific classification.
- C. For the purpose of the OJT program, a quarter of the program is twenty-five percent (25%) of the training hours credited to the trainee for a particular classification and does not represent three months of the year. Other wage benchmarks are calculated in a similar manner.

## **METHOD OF MEASUREMENT**

- A. All hours of onsite and approved offsite training provided in accordance with the approved program and this provision and as shown in trainee reports and on project payrolls will be credited as trainee hours for purpose of contract payment.

## **BASIS OF PAYMENT**

- A. All program reimbursements will be made directly to the Contractor at the project conclusion. The Contractor will be paid, as reimbursement for the extra cost involved in providing the training, the amount per training hour bid for the item "Training" for each hour of training provided and reported.
- B. No payment will be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyworker, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Special Provision.
- C. Liquidated damages will be assessed the contractor for failure to make a good faith effort to enroll the number of trainees necessary to meet the training requirements of this Special Provision. For each trainee slot left unfilled, damages will be assessed at the rate of 100% of the bid amount for the training item times the minimum number of hours specified in the item quantity. For each trainee for whom contractor training is determined to be inadequate and which evidences a lack of good faith to fulfill the training requirements, damages will be assessed at the rate of 100% of the bid amount for the training item times the minimum number of hours specified in the item quantity.
- D. Failure to furnish required documents and reports in the manner and time specified may result in forfeiture of all or a portion of the amounts due the Contractor for reimbursement for training.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING  
SECTION 404 OF  
THE CLEAN WATER ACT**

**NH 0012(160)298 PCN 023C  
BROWN COUNTY**

**MARCH 5, 2012  
NATIONWIDE PERMIT NO NWO-2012-192**

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The above referenced project is authorized under 404 Nationwide Permit Section 23.

This Nationwide Permit authorization is valid until March 18, 2012. If the project is in progress at that time, we have an additional one year to complete the permitted work.

The following conditions contained in the Department of the Army Nationwide Permit are to be adhered to in connection with the construction of this project:

33 CFR SECTION 330.5

Section 330.5b General Conditions: The following general conditions must be followed in order for any authorization by a nationwide permit to be valid:

Please refer to the attached *Fact Sheet Nationwide Permit 23*.

The above authorization permits placement of fill in the drainage crossings or wetlands noted below:

Drainage Crossing(s) Permanent:

Sta. a45+27

\* \* \* \*



## FACT SHEET NATIONWIDE PERMIT 23

**APPROVED CATEGORICAL EXCLUSIONS.** Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from environmental documentation, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this NWP.

**Notification:** Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity. The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letters. (Sections 10 and 404)

**Note:** The agency or department may submit an application for an activity believed to be categorically excluded to the Office of the Chief of Engineers (Attn: CECW-CO). Prior to approval for authorization under this NWP of any agency's activity, the Office of the Chief of Engineers will solicit public comment. As of the date of issuance of this NWP, agencies with approved categorical exclusions are the: Bureau of Reclamation, Federal Highway Administration, and U.S. Coast Guard. Activities approved for authorization under this NWP as of the date of this notice are found in Corps Regulatory Guidance Letter 05-07, which is available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/rxlsindx.htm> . Any future approved categorical exclusions will be announced in Regulatory Guidance Letters and posted on this same web site.

**General Conditions:** To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

**1. Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**2. Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

**3. Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

**4. Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

**5. Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48.

**6. Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

**7. Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

**8. Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

**9. Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

**10. Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

**11. Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

**12. Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

**13. Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

**14. Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

**15. Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

**16. Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

**17. Endangered Species.** (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

**18. Historic Properties.** (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

**19. Designated Critical Resource Waters.** Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

**20. Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.



(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

**21. Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**22. Coastal Zone Management.** *Not Applicable.*

**23. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

**24. Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

**25. Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:  
“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

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(Transferee)

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(Date)

**26. Compliance Certification.** Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- (c) The signature of the permittee certifying the completion of the work and mitigation.

**27. Pre-Construction Notification.** *See attached pages.*

**28. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

## **REGIONAL CONDITIONS, SOUTH DAKOTA**

The U.S. Army Corps of Engineers has adopted the following regional conditions for activities authorized by nationwide permits within the State of South Dakota. However, the pre-construction notification requirements defined below are not applicable to Nationwide Permit 47.

### **1. Wetlands Classified as Fens**

All nationwide permits, with the exception of 3, 5, 20, 27, 30, 32, 38, 45 and 47, are revoked for use in fens in South Dakota. For nationwide permits 3, 5, 20, 27, 30, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition No. 27 (Notification) prior to initiating any regulated activity impacting fens in South Dakota.

Fens are wetlands that develop where a relatively constant supply of ground water to the plant rooting zone maintains saturated conditions most of the time. The water chemistry of fens reflects the mineralogy of the surrounding and underlying soils and geological materials. The substrate is carbon-accumulating, ranging from muck to peat to carbonates. These wetlands may be acidic to alkaline, have pH ranging from 3.5 to 8.4 and support a range of vegetation types. Fens may occur on slopes, in depressions, or on flats (i.e., in different hydrogeomorphic classes; after: Brinson 1993).

### **2. Waters Adjacent to Natural Springs**

For all nationwide permits permittees must notify the Corps in accordance with General Condition No. 27 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in South Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

### **3. Spawning Areas**

In order to further minimize adverse impacts in certain waters of the United States and to comply with General Condition No. 3, projects authorized under all available Section 404 Nationwide Permits that would occur in South Dakota's cold water streams must comply with the following regional condition:

In all South Dakota streams classified as cold water streams, when water flow is present, the discharge of dredged or fill material shall not take place between October 15 and April 1. The Corps of Engineers, the South Dakota Department of Game, Fish and Parks, or the South Dakota Department of Environment and Natural Resources can be contacted for the location of State classified cold water streams. The cold water fisheries rivers and streams in South Dakota may be found at <http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=74:51:03>.

#### **4. Historic Properties**

The permittee and/or the permittee's contractor, or any of the employees, subcontractors or other persons working in the performance of a contract(s) to complete the work authorized herein, shall cease work and report the discovery of any previously unknown historic or archeological remains to the South Dakota Regulatory Office. Notification shall be by telephone or fax within 24 hours of the discovery and in writing within 48 hours. Work shall not resume until the permittee is notified by the South Dakota Regulatory Office.

**Additional Information:** Permittees are reminded of the existing General Condition No. 6 which prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material.

#### **Further Information**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

**General Condition 27. Pre-Construction Notification.**

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

- (1) Name, address and telephone numbers of the prospective permittee;
- (2) Location of the proposed project;
- (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the

terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);

(4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an

agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

(5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

(e) District Engineer's Decision: In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.



STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION

Page 1 of 4

SPECIAL PROVISION REGARDING  
RAILROAD INSURANCE REQUIREMENTS FOR  
BNSF RAILWAY COMPANY

NH 0012(160)298, PCN 023C, BROWN COUNTY  
US12 STRUCTURE 07-267-329

PUBLIC OVERPASS CROSSING 393749A, RR MP 691.41, LS 2005

FEBRUARY 24, 2012

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Before commencing any work on, over, or near BNSF property, the successful contractor shall provide and maintain in effect insurance covering all of the work and services to be performed by the Contractor and each of its subcontractors in the coverage and minimum amounts as noted below:

1. Railroad Protective Liability: **BNSF Railway Company shall be the Named Insured** for bodily injury and property damage of \$2,000,000 per occurrence and \$6,000,000 in the aggregate. This insurance *shall include the Limited Seepage and Pollution Liability Endorsement, Pollution Exclusion Amendment, and Notice of Change Endorsement.*
2. Commercial General Liability: **BNSF Railway Company shall be named an Additional Insured** for bodily injury, property damage and contractual liability for work being performed within 50 feet of railroad property, in the amount of \$2,000,000 per occurrence, with an aggregate of \$4,000,000.
3. Automobile Liability: **BNSF Railway Company shall be named an Additional Insured** for bodily injury and property damage, with coverage of at least \$1,000,000 combined single limit or the equivalent covering any and all vehicles owned or hired by the Contractor and used in performing work for this project.
4. Workers' Compensation Insurance: As required under the South Dakota Workers' Compensation Law.

**RAILROAD PROTECTIVE LIABILITY**

At the Contractor's option, the Contractor may obtain a Railroad Protective Liability Insurance Policy from an insurance agent or the insurance is available for purchase from the BNSF's Public Project Railroad Protective Program through Marsh USA, Inc.

Inquiries for premium rates for insurance to be purchased from the BNSF's Public Project Railroad Protective Program are to be directed to:

Marsh USA, Inc.  
1717 Main Street, Suite #4400  
Dallas, Texas 75201  
Attn: Rosa Martinez, telephone #214-303-8519

## CERTIFICATE OF INSURANCE

A Certificate of Insurance evidencing the issuance of insurance coverage as prescribed in items 2, 3, and 4 above shall be obtained by the Contractor. A Waiver of Subrogation is to be shown in favor of the Railroad as respects to the General Liability, Automobile Liability and Workers' Compensation. Also required is primary and non-contributing wording as respects to the General Liability and Automobile Liability.

### NAMED INSURED

The certificate holder for Certificate of Insurance and the named insured for Railroad Protective Liability shall read:

\_\_\_\_\_ BNSF Railway Company  
\_\_\_\_\_ PO Box 140528  
\_\_\_\_\_ Kansas City, MO 64114  
\_\_\_\_\_ Email: [BNSF@CertFocus.com](mailto:BNSF@CertFocus.com)

Questions regarding BNSF's insurance requirements are to be directed to Vickie Barnett, Assistant Manager – Risk Management, BNSF Railway Company, at 817-352-2414.

### SUBMITTAL OF INSURANCES TO BNSF AND STATE

- A. The successful contractor shall submit the **BNSF Public Project Notification Form for the State of South Dakota** to BNSF's Certificate Tracking Administrator, CertFocus. (See page 4 of 4 of this special provision for the form.)
- B. The successful contractor shall submit its signed original policy for Railroad Protective Liability Insurance to BNSF's Certificate Tracking Administrator, CertFocus. The original policy is to be submitted as Certificates of Insurance for Railroad Protective Liability Insurance are not acceptable. The original policy must also have all pertinent endorsements attached, including those mentioned in item 1. The funding agency, location with a complete description of the job, and project number shall appear on the policy.

If the contractor has obtained Railroad Protective Liability Insurance from the BNSF's Public Project Railroad Protective Program, MARSH USA, Inc. will forward the required acknowledgement document to CertFocus.

- C. The successful contractor shall submit a signed Certificate of Insurance evidencing the issuance of insurance coverage as prescribed for Commercial General Liability, Automobile Liability, and Workers' Compensation Insurance to CertFocus.
- D. The successful contractor shall submit copies of BNSF approved Railroad Protective Liability Insurance policy or MARSH USA's acknowledgement document and Certificate of Insurance to the State Area Engineer.

The contractor shall submit the information as requested in items A, B, C, and D to:

**CertFocus**

PO Box 140528

Kansas City, MO 64114

Email: BNSF@certfocus.com

**Fax number: 817-840-7487**

**Toll Free: 877-576-2378**

**AND**

**Phillip Dwight, Aberdeen Area Engineer**

South Dakota Department of Transportation

PO Box 1767

Aberdeen, SD 57402

**Fax Number: 605-626-3322**

**The successful contractor shall not be proceed with any work on, over, or near BNSF property (at a minimum of 50 feet from centerline of any track) until the contractor has been notified by the BNSF that the required insurances have been approved and documentation of approval has been provided to the Area Engineer.**

All costs associated with these insurance requirements, including increasing policy limits, when required, shall be incidental to the bid item RAILROAD PROTECTIVE INSURANCE.

The parties mutually understand and agree that the purchase of insurance shall not in any way limit the liability of the Contractor to the Railroad.

**Failure to obtain the required insurances and approvals prior to working on, over, or near BNSF property will result in suspension of all work until required insurances are obtained and approved.**

**BNSF Public Project Notification Form for the State of South Dakota**

**Location on Railroad System:**

DOT # 393749A RR MP & Line Segment: MP 691.41, LS 2005

DOT # \_\_\_\_\_ RR MP & Line Segment: \_\_\_\_\_

DOT # \_\_\_\_\_ RR MP & Line Segment: \_\_\_\_\_

Nearest City: US12 west of Groton, SD

**Contractor Information:**

Contractor Name: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contractor Phone Numbers: \_\_\_\_\_ cell: \_\_\_\_\_

Contractor Fax Number: \_\_\_\_\_

Contractor Contact Name: \_\_\_\_\_

Start Date of Project: \_\_\_\_\_ End Date of Project: \_\_\_\_\_

Work to be completed for: State/DOT City County Township

SD State Project Number: NH 0012(160)298, Brown County PCN # 023C

Describe Work to be performed on, over or near BNSF property: Clean bridge deck with an abrasive blasting material and apply two coats of epoxy bridge deck chip seal.

Submit this form to BNSF's Certificate Tracking Administrator: CertFocus  
PO Box 140528  
Kansas, MO 64114  
Email: BNSF@CertFocus.com  
Fax number: 817-840-7487  
Toll Free: 877-576-2378

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION

PAGE 1 of 5

SPECIAL PROVISION FOR  
WORKING ON RAILROAD PROPERTY  
BNSF RAILWAY COMPANY

NH 0012(160)298, PCN 023C, BROWN COUNTY  
US12 STRUCTURE 07-267-329

PUBLIC OVERPASS CROSSING 393749A, RR MP 691.41, LS 2005

FEBRUARY 24, 2012

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1. REQUIREMENTS OF THE CONTRACTOR IN RELATION TO THE PROTECTION OF THE RAILROAD PROPERTY AND OPERATIONS FROM HAZARD DUE TO CONSTRUCTION OPERATIONS.

The Railroad contact for this project is: Larry Sanders, Roadmaster, BNSF Railway Company, 102 Railroad Avenue SW, Aberdeen, SD 57401, cell phone #605-228-8456. The Roadmaster may designate others to represent the Railroad.

Construction work or activities within 25' of a track may require the Railroad to flag to safeguard Railroad's operations and property. The Contractor shall schedule its work in a manner and sequence that will minimize the requirement for Railroad flagging.

The Contractor shall notify the Roadmaster at least thirty (30) days in advance before entering Railroad property to allow Railroad to possibly bulletin for Railroad flagger(s) position. **The Contractor shall coordinate its work schedule with the State and Railroad Representatives prior to notifying the Railroad of required flagging dates.** The Contractor shall contact the Roadmaster again at least five (5) working days in advance of entering upon Railroad property to conduct work or activities that will require flagging. Prior to entering Railroad property a safety orientation is required, see item (2) of this Special Provision for additional information.

When flagger(s) is/are no longer required to flag Contractor's work or activities as determined after consultation with the State and Railroad Representatives, the Contractor shall provide five (5) working days' notice to the Roadmaster in order for the Railroad to abolish the flagger(s) position per Railroad union requirements. **The lack of proper or timely notification could result in which the Contractor being responsible for payment for unnecessary flagging.** Normal and customary charges for flagging will be paid by the State.

If a Railroad Representative is required to flag, the Railroad will submit the billings for flagging directly to the **Aberdeen Area Engineer, South Dakota Department of Transportation, PO Box 1767, Aberdeen, SD 57402.** Contractor will notify Roadmaster of billing requirement.

Railroad flagger(s) and protective services and devices will be required and furnished when Contractor's work or activities are located **over, under, or within twenty-five (25) feet** measured horizontally and perpendicular from centerline of the nearest track, when cranes or similar equipment positioned outside of 25-foot area from track centerline could foul the track in the event of tip over or other catastrophic occurrence, and, including, but not limited to the following conditions:

- a. When in the opinion of the Railroad's Representative, it is necessary to safeguard Railroad property, employees, trains, engines, or facilities.
- b. When any excavation is performed below the bottom of railroad tie elevation, if, in the opinion of Railroad's Representative, track or other railroad facilities may be subject to movement or settlement.
- c. When work in any way interferes with the safe operation of trains at timetable speeds.
- d. When any hazard is presented to railroad track, communications, signal, electrical, or other facilities either due to persons, material, equipment, or blasting in the vicinity.

Contractor must obtain special permission from the Railroad before moving heavy or cumbersome objects or equipment which may result in making the track impassable.

The Contractor will request a train schedule and will not be within 25 feet of center of any track when a train is present. Further, no work or activities performed by the Contractor shall cause any interference with the constant, continuous and uninterrupted use of the track, property, or facilities of the Railroad; its lessees, licensees, or other users, unless specifically authorized in advance by the Railroad's Representative. Nothing shall be done by the Contractor at any time that would in any manner impair the safety of the track, property, or facilities of the Railroad, its lessees, licensees, or other users.

Contractor will waive, release, indemnify, and defend Railroad for all judgments, awards, claims, demands, and expenses (including attorney fees), for injury or death to all persons, including Railroad's and Contractor's officers and employees, and for loss and damage to property belonging to any person, arising in any manner from Contractor's or any of Contractor's subcontractor's acts or omissions or any work performed by or on behalf of Contractor's or any of Contractor's subcontractor's on or about Railroad's property or right-of-way. **THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, DAMAGE, DEATH, OR INJURY WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILROAD, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIM IS PROXIMATELY CAUSED BY THE INTENTIONAL MISCONDUCT OR SOLE NEGLIGENCE OF RAILROAD.**

This obligation will not include any claim, cost, damage, or expense which may be caused by the intentional misconduct or sole negligence of Railroad or its contractor, agent, or employee.

**THE INDEMNIFICATION OBLIGATION ASSUMED BY CONTRACTOR INCLUDES ANY CLAIM, SUIT, OR JUDGMENT BROUGHT AGAINST RAILROAD UNDER THE FEDERAL EMPLOYEES' LIABILITY ACT, INCLUDING CLAIMS FOR STRICT LIABILITY UNDER THE SAFETY APPLIANCE ACT OR THE LOCOMOTIVE INSPECTION ACT, WHENEVER SO CLAIMED.**

Contractor further agrees, at its expense, in the name and on behalf of Railroad, that Contractor will adjust and settle all claims made against Railroad, and will, at Railroad's discretion, appear and defend any suit or action at law or in equity brought against Railroad on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railroad is liable or is alleged to be liable. Railroad will give notice to Contractor, in writing, of the receipt or dependency of such claim and thereupon Contractor must proceed to adjust and handle to a conclusion such claim, and, in the event of a suit being brought against Railroad, Railroad may forward summons and complaint or other process in connection therewith to Contractor, and Contractor, at Railroad's discretion, must defend, adjust, or settle such suit and protect and indemnify Railroad from and against all damage, judgment, decree, attorney fees, cost, and expense growing out of or resulting from or incident to any such claim or suit.

In addition to any other provision of this Agreement, if all or any portion of this Article is deemed to be inapplicable for any reason, including, without limitation as a result of a decision of an applicable court, legislative enactment, or regulatory order, the parties agree this Article will be interpreted as requiring Contractor to indemnify Railroad to the fullest extent permitted by applicable law.

The assumption of liabilities and indemnification provided for in this Agreement will survive any termination of this Agreement.

The Contractor's obligations under this Agreement will not extend to the liability of the architect or engineer, agents or employees arising out of: (1) The preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, or, (2) The giving of or the failure to give directions or instructions by the architect, or engineer, agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

## 2. REQUIREMENTS FOR CONTRACTOR WORKING ON RAILROAD PROPERTY.

Prior to entering Railroad property, each person providing labor, material, supervision, or services connected with the work to be performed on or about Railroad property shall attend a Safety Orientation session conducted or approved by the Railroad. Personnel may satisfy the safety orientation session requirement by completing the safety orientation session available at the following Internet site:

[www.contractororientation.com](http://www.contractororientation.com)

If the Internet safety orientation session is unavailable, the Contractor shall contact Railroad's Manager Public Projects, telephone 763-782-3492 fax 763-782-3061, at least thirty (30) calendar days in advance to arrange the necessary Safety Orientation session(s).

Expenses associated with completing the Safety Orientation session will be incidental to the project.

While on or about Railroad property, Contractor shall fully comply with Railroad's "Contractor Requirements," including, but not limited to, clearance requirements and personal protective equipment requirements. A partial list of the "Contractor Requirements" is included in this Special Provision. Additional information regarding "Contractor Requirements" is available for viewing at the above referenced Safety Orientation Internet site. The Contractor shall be responsible for fully informing itself as to Railroad's "Contractor Requirements."

PARTIAL LIST OF “CONTRACTOR REQUIREMENTS”

- a. Prior to entering the Railroad property, the Contractor shall prepare and implement a Safety Action Plan acceptable to the Railroad. During the performance of work, the Contractor shall audit its compliance with that plan. The Contractor shall designate an on-site project supervisor who shall serve as the contact person for the Railroad and who shall maintain a copy of said plan and audit results at the work site for inspection and review by the Railroad at all reasonable times.
- b. All required permits and agreements must be in effect, required payments made, and **insurance policies and certificates received and approved** before the Contractor enters Railroad property. Insurance must remain in effect during the entire project.
- c. Before the Contractor begins any task on Railroad property, a thorough job safety briefing shall be conducted with all personnel involved with the task. The briefing shall be repeated if the personnel or the task changes.
- d. No change will be made to “Construction Plans” without approval by Railroad or State Representatives. Approved revised plans will be furnished prior to implementation of changes.
- e. When deemed necessary by Railroad or State Representative, flagging protection by Railroad may be required while working on Railroad property or when equipment crosses the tracks.
- f. The Contractor must furnish details on how it will perform work that will affect existing drainage or possibly foul a track, as well as any **removal of any overhead bridge or structure**.
- g. Construction equipment must cross railroad track only at approved locations and must be over a full depth timbers, rubber, or concrete crossing. No equipment with steel wheels, lugs, or tracks may cross steel rails without aid of rubber tires or other approved protection. No vehicle may cross Railroad’s track except at existing open public crossings.
- h. Each temporary construction crossing must be covered by a “Private Roadway & Crossing Agreement,” and must be barricaded when not in use. Any requests for a temporary construction crossing are to be directed to the Railroad.
- i. The Contractor will **incur all costs** for any track work made necessary due to its construction operations, including but not limited to costs for temporary construction crossings and repair of damaged track.
- j. The Contractor may not pile construction materials or any other material, including, but not limited to dirt and sand, within 25 feet of center of track or on Railroad property not covered by Construction Easement or Contractor’s Permit/Lease. A 10 foot clear area on each side of a main track must remain unobstructed at all times to allow for stopped train inspection.
- k. When leaving any work area at night and over weekends, each area must be secured and left in a condition that will ensure Railroad’s employees and other personnel and other persons who may be working or passing through the area are protected from all hazards.



- l. No construction will be allowed within 25 feet of center of any track unless authorized by the Railroad's Representative and shown on Plan approved by the Railroad. This includes any excavation, falsework, scaffolding, slope encroachment and driving of sheet piles. Any excavation must be covered, guarded or protected when not being worked on. All excavations must be back filled as soon as possible.
- m. *No machines or equipment may be left unattended with the engine running. Each parked machine and equipment must be in gear with brakes set and, if equipped with blade, pan or bucket, the blade, pan or bucket must be lowered to the ground. All machinery and equipment left unattended must be left inoperable and secured against movement. The master battery disconnect switch must be left in the off or disconnect position and padlocked. Where equipment has an enclosed cab, a lockable hasp on the cab access door should be provided. This will prevent the use of easily obtainable universal keys to access equipment cabs. Equipment is not to be left within 50 feet of from centerline of nearest track without specific approval from the Railroad Representative. Under no circumstances is equipment to be left where it is within 8'-6" of track centerline or otherwise could be struck by a train or on-track equipment.*
- n. All personal protective equipment used on the Railroad property shall meet OSHA and ANSI specifications. Hearing protection, fall protection and respirators will be worn as required by State and Federal regulations. The Contractor's safety rules must not conflict with Railroad safety policies or rules.
- o. Important - Disregard of any of these items will result in Contractor being shut down for a minimum of 48 hours on railroad property while infraction is investigated. Based on the findings of the investigation, it will be determined if the Contractor will be allowed to work on railroad property in the future.

3. RIGHT OF ENTRY FOR THE CONTRACTOR ON RAILROAD PROPERTY

Right of Entry shall not be granted by either the Railroad or the State Representative until the Contractor has completed the following:

- a. The Contractor has furnished the "Railroad Protective Liability" policy, Certificate of Insurance for "Commercial General Liability," "Automobile Liability," and "Workers' Compensation Insurance" to the Railroad and State in amounts satisfactory to the Railroad. See "Special Provision Regarding Railroad Insurance Requirements."
- b. The Railroad has notified the Contractor that said insurances have been approved by the Railroad.
- c. The Contractor has completed Safety Orientation session and made satisfactory arrangements with Railroad's Representative for progress of work without danger to train operations, without unnecessary interruption to train movements, and for flagging protection as necessary.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
CONTRACTOR FURNISHED MIX DESIGNS  
FOR PCC PAVEMENT**

**NOVEMBER 17, 2011**

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This work consists of establishing the mix design requirements and acceptance criteria for Portland Cement Concrete Pavement (PCCP).

**Make the following changes to the Standard Specifications for Roads and Bridges:**

**Section 380.3 A – Page 139 and 140 – Delete this section and replace with the following:**

**A. Concrete Quality, Proportioning, and Acceptance:** The Contractor shall design and be responsible for the performance of all concrete mixes used in the PCC pavement.

**1. Mix Design Requirements:** The mix proportions selected shall produce concrete that is sufficiently workable and finishable for all uses intended and shall conform to the following requirements.

The mix design process shall produce a mix design that will plot within the limits listed in Chart A. The mix design shall also meet the following requirements when plotted on the 0.45 power chart. The best fit line plotted on the 0.45 power chart shall use a top size of 1" (25 mm) aggregate for jointed concrete pavement and 1.5" (37.5 mm) aggregates for Continuously Reinforced Concrete Pavements (CRCP). The combined gradation when plotted on the 0.45 power chart should fit within the limits as defined in Chart B for jointed concrete pavement or Chart C for CRCP. CRCP mix designs shall retain a minimum of 11.5% of the total aggregate above the 1" (25mm) sieve.

On small areas, using stationary side formed paving methods; the Engineer may permit the substitution of Class A45 (A31) concrete for the concrete paving mix. Class A45 (A31) shall meet the requirements of Section 460, except the concrete shall have a slump range of

between 1" and 3" (25 -75mm) and shall contain fly ash. Fly ash shall constitute 20% of the cementitious material (at a 1:1 ratio), by weight.

Satisfactory performance of the proposed mix design shall be verified by laboratory tests on trial batches. The trial batches must be performed by an approved testing facility approved by the Concrete Engineer. An on site inspection of mix design procedures and equipment may be required. Trial batches shall be conducted in accordance with the American Concrete Institute Publication 211.1, ASTM C192 and the following:

- a. **Cementitious Material Content:** The mix design shall establish a cementitious material content (total of cement, fly ash, and other cementitious additions). The minimum cementitious material content shall be 575 pounds per cubic yard (261 Kilograms per cubic meter). The maximum cementitious material content shall be 800 pounds per cubic yard (363 Kilograms per cubic meter).
- b. **Fly ash:** Fly ash shall be included in the concrete mixture. Fly ash shall constitute 20% of the cementitious material (at a 1:1 ratio), by weight.
- c. **Water/Cementitious Material Ratio:** The mix design shall establish a maximum water/cementitious material ratio, which shall not exceed 0.42 Lb./Lb. (Kg/Kg)
- d. **Slump:** The slump at 20 minutes after completion of mixing for each trial mix shall be 1.25" to 2.75" for slipformed pavements and 2.25 to 3.75 for formed pavements. The initial slump immediately after completion of mixing shall be tested and reported as well. The concrete for the 20 minute slump shall be exposed to ambient air temps between 68° to 86° F.
- e. **Coarse Aggregate Percentage:** The mix design shall establish the percentage of coarse aggregates to be used. The minimum coarse aggregate content shall be 55%. The coarse aggregate percent is determined by the weight of the total amount of aggregate per cubic yard.
- f. **Entrained Air content:** The volumetrics of the mix design shall be based on 6.5% air content.

The air content for all concrete trial mixes shall have an entrained air content of 7.0% - 8.0.

- g. Compressive Strength:** The mix design shall be based upon obtaining an average minimum compressive strength of 4000 psi (28MPa) at 7 days and 5200 psi (36 MPa) at 28 days.
- h. Lab Trial Mixes:** A minimum of four trial batches with different proportions shall be required. Of the minimum four trial batches, two each shall be made at different proportions of aggregates. In addition, each trial batch shall have a minimum of two trial batches at different water/cementitious material ratios or different cement contents. A different proportion of aggregate must be at least a 1% (of total aggregate) sand change or a 2% (of total coarse aggregate) rock change. A different water/cementitious material ratio shall be at least a 0.02 change. A different cement content change shall be an addition or subtraction of at least 20 lbs of cementitious materials.

All mix designs shall be based off of Saturated Surface Dry (SSD) condition & Aggregate specific gravity at SSD.

A minimum of 3 cylinders at each age, for each trial shall be tested for compressive strength at 7, 14, and 28 days. All 9 cylinders must be made from the same batch of concrete. The cylinders must be consolidated by the rodding method.

The fresh concrete temperature shall be between 68° and 86° F immediately after completion of mixing.

The results of the trial mixes including all batched weights, aggregate moisture contents, fresh concrete results (initial and 20 minute slump, initial air content, initial unit weight, and initial temperature), actual water/cementitious material ratio, compressive strengths, aggregate gradations (including production tests) and aggregate quality results shall be furnished by the Contractor to the Engineer at the time the proposed mix design is submitted for verification.

Consideration for expected field temperatures may be made when evaluating laboratory trials. Changes that cause a deviation from the requirements of this provision for expected field temperatures must be submitted and evaluated by the Concrete Engineer prior to performing trial batches.

- i. Laboratory Trial Batch Verification:** Mix design data and test results shall be recorded on a DOT Form 24 and submitted to the Engineer, along with all necessary supporting documentation. Approval of mix designs shall not relieve the Contractor from the responsibility for furnishing a concrete mix that meets specification and workability requirements.

All mix designs and any modifications thereto, including, but not limited to, changes in type of admixtures used or aggregate percentage splits, shall be submitted to the Central Materials Testing Laboratory on a DOT 24 form for approval and or verification (at the discretion of the Concrete Engineer) prior to use. Changes in brand name of admixtures and cement may be made without submitting to the Central Materials Testing Lab for verification provided it is the same type of material. Changes in type (i.e. mid-range water reducer to high-range water reducer or Type II cement to Type III cement) will require submittal for verification. Dosage changes to admixtures may be made without verification.

Mix design verification by the Department shall not commence until the Department has received all of the necessary samples and information from lab trials and aggregate tests. The Contractor's mix design lab trial must also obtain 4000 psi (28MPa) at 7 days. The Department will require 40 days prior to production to complete mix design verification.

A concrete mix design that previously has been allowed for use under this provision will be considered for approval if all proportions are unchanged from those previously used, and current aggregate samples show the materials to be used are the same as those used for the original mix design, and the previous project's test results were satisfactory for strength, workability, and performance. Aggregate samples for gradation checks shall be submitted along with the request to use a previously approved mix design a minimum of 40 days prior to the anticipated use.

The Department will verify one of the submitted mix design trails. The Department's verification can be no more than 10% less than the Contractor's submitted strength. If the Department's verification does not match the Contractor's submittal the first time, the Department will do a second verification at the Contractor's request. The costs involved with any further mix design verifications will be at the Contractor's expense.

2. **Field Acceptance Criteria:** The Contractor shall produce a concrete mix in accordance with the approved mix design and the following:
  - a. **Slump:** The slump range for pavements placed by the slipform paving method shall be 0"-2" (0-50 mm) at the time of placement. Concrete placed by the stationary side form method shall have a slump range of 1"-3" (0-75 mm) at the time of placement.

- b. Entrained Air Content:** All concrete shall have a target entrained air content of 6.5%.

The allowable tolerance from target values shall be +1.0% and -1.5%.

- c. Compressive Strength:** Concrete shall exhibit a minimum compressive strength of 4000 psi (28 MPa) at 28 days.

- d. Water/Cementitious Ratio:** The maximum Water/Cementitious ratio shall be as listed on the mix design as calculated by total free water in pounds divided by total pounds of cementitious material per batch or per cubic yard.

- e. Determination of Field 28 Day Compressive Strength and Acceptance Criteria:** The Engineer will be responsible for the sampling, preparing, curing, and breaking of all concrete cylinders for concrete compressive strength in accordance with the Department's Materials Manual. The 28 day compressive strength shall be determined in accordance with SD 420.

The 28 day compressive strength acceptance criteria shall be as follows:

- 1) Concrete Cylinder Testing:** If the 28 day cylinder compressive strength is greater than or equal to the specified 28 day compressive strength, the quantity of concrete represented by the cylinder shall be accepted.

If the 28 day cylinder compressive strength is less than the specified 28 day compressive strength, the backup cylinder shall be broken as soon as possible after breaking the 28 day cylinder. The compressive strength for the backup cylinder will be the strength at the time that it was broken and will not be corrected back to 28 day strength.

- 2) Backup Concrete Cylinder Testing:** If the backup cylinder compressive strength is greater than or equal to the specified 28 day compressive strength, the quantity of concrete represented by the cylinder shall be accepted.

If the backup cylinder compressive strength is less than the specified 28 day compressive strength by no more than 500 psi (3.5 Mpa), the Concrete Engineer will determine if the concrete pavement represented by the cylinder is structurally adequate at the average compressive strength of the 28 day and the backup cylinder. If structurally adequate, the concrete will be allowed to remain in place and will be subject to price adjustment based on

the average compressive strength of the two cylinders. If the analysis shows the average cylinder compressive strength is not structurally adequate, the concrete will be removed and replaced at the Contractor's expense.

If the average compressive strength of the 28 day and the backup cylinder compressive strength is more than 500 psi (3.5 Mpa), below the specified 28 day compressive strength, the concrete pavement represented by the cylinders shall be removed and replaced, unless the Area Engineer approves other corrective measures.

- 3) Department Coring Option:** If there is some reason to suspect that the compressive strength test results are not valid due to a damaged concrete cylinder, malfunction of testing equipment, etc. or that the test results are not representative of the in place concrete, the Department may core the concrete represented by the cylinders. When cores are deemed necessary by the Department and are required at no fault of the Contractor, the Department will arrange for the additional testing and all costs will be borne by the Department. The coring and compressive testing shall be in accordance with the current edition of AASHTO T24 (ASTM C42).

If the average core compressive strength is greater than or equal to the specified 28 day compressive strength, the quantity of concrete pavement represented by the cylinders shall be accepted.

If the average core compressive strength is less than the specified 28 day compressive strength by no more than 500 psi (3.5 Mpa), the Concrete Engineer will determine if the concrete pavement is structurally adequate at the lower compressive strength. If structurally adequate, the concrete will be allowed to remain in place and will be subject to price adjustment. If the analysis shows the average core compressive strength is not structurally adequate, the concrete will be removed and replaced at the Contractor's expense.

If the average core compressive strength is more than 500 psi (3.5 Mpa) below the specified 28 day compressive strength, the concrete represented by the cylinders shall be removed and replaced, unless Area Engineer approves other corrective measures.

- 4) Contractor Coring Option:** If the Contractor disputes the accuracy of the 28 day cylinder compressive strength, the



Contractor has the option to core the concrete represented by the cylinders. Upon notification of a deviation from the specified compressive strength, the Contractor shall provide written notification of the intent to core the represented concrete within 5 calendar days. Coring shall be done in accordance with Section 380.3 A.2.e.5.

If the average core compressive strength is greater than or equal to the specified 28 day compressive strength, the quantity of concrete represented by the cylinder shall be accepted.

If the average core compressive strength is less than the specified 28 day compressive strength by no more than 500 psi (3.5 Mpa), the Concrete Engineer will determine if the unit is structurally adequate at the lower compressive strength. If structurally adequate, the concrete will be allowed to remain in place and will be subject to price adjustment. If the analysis shows the average core compressive strength is not structurally adequate the concrete will be removed and replaced at the Contractor's expense.

If the average core compressive strength is more than 500 psi (3.5 Mpa) below the specified 28 day compressive strength, the concrete represented by the cylinders shall be removed and replaced, unless the Area Engineer approves other corrective measures.

- 5) Coring & Compressive Testing:** If the Contractor utilizes the option to core as specified in Section 380.3 A.2.e.4, the Contractor shall arrange for an independent testing laboratory to perform the coring and compressive testing within 14 calendar days of notification of the failing compressive strength of the backup cylinder. The independent testing laboratory must be approved by the Concrete Engineer prior to starting the coring and compressive testing. The coring and compressive testing shall be in accordance with the current edition of AASHTO T24 (ASTM C42).

The Contractor will take 3 cores of the area representing the cylinders in which the compressive strength is in question and have them tested for compressive strength. The coring shall be witnessed by the Area Engineer and compressive testing shall be witnessed by the Region Materials Engineer.

The Contractor will be responsible to locate the reinforcing steel prior to coring. It is critical that the coring operation avoids all reinforcing steel. The core holes shall be grouted with a grout that conforms to Section 460.3 S.

The average compressive strength of 3 cores will be used for the determination of acceptance of concrete represented by each set of 28 day cylinders. One core compressive strength may be 15% below the specified strength if the average of the 3 core compressive strengths is above the specified strength. ASTM E 178.4 (Standard Practice for Dealing With Outlying Observations) will be used with the 10% significance level to deal with excessively high or low core strengths. If a core compressive strength is an outlier, then the set of cores will be averaged using the 2 remaining cores.

The average compressive strength of the cores will prevail over all other compressive strength determination methods.

If the Contractor utilizes the option to core as specified in Section 380.3 A.2.e.4, all costs for the coring and compressive strength testing shall be borne by the Contractor. The Department will not reimburse the Contractor for coring and compressive strength testing costs. If it is determined by the additional testing that the 28 day compressive strength is less than that specified, the concrete shall be either accepted or rejected as per Section 380.3 A.2.e.4

The following information shall be provided for each core taken:

- a)** Include DOT project number, county, & PCN number.
- b)** Core identification number & location of each core (be specific - representing cylinder number, location of cores sketch, date concrete was cast, date cores taken, date cores tested, etc.)
- c)** Age of the concrete at the time of testing.
- d)** Length & diameter of each core tested.
- e)** Unit weight of each core.
- f)** End preparation (capped or neoprene).
- g)** Date of last calibration of the compression machine.
- h)** What, if any, correction factor was used to compute the compressive strength.
- i)** Actual calculations including load & cross-sectional area.
- j)** Type of fracture as per ASTM C39. Note if the bond to the coarse aggregate is not adequate due to cement adhesion.
- k)** Any defects in either the core or the cap.
- l)** Maximum loading rate applied to the core during compression testing.

**Section 820.1 A – Page 441 – Delete this section and replace with the following:**

**A. Coarse Aggregate for Concrete Pavement and Class A Concrete:** The coarse aggregate shall consist of crushed ledge rock, quarry stone, or other ledge rock. Coarse aggregate for Class A concrete shall conform to the gradation requirements of Size Number 1. Coarse aggregate for Continuously Reinforced Concrete Pavement shall conform to Size Number 20. Coarse aggregate for all other PCC Pavements shall conform to size number 15.

**Section 820.2 D – Page 442 – Delete this section and replace with the following:**

**D. Gradation:** Each size of coarse aggregate shall conform to the gradation requirements specified in the following table:

**PERCENTAGE BY DRY WEIGHT PASSING SIEVE  
ENGLISH UNITS**

Size No.	Nominal Size Square Openings	2 inch	1½ inch	1 inch	¾ inch	½ inch	3/8 inch	No. 4	No. 8
1	1 inch to No. 8		100	95-100		25-60		0-10	0-5*
1A	¾ inch to No. 8			100	90-100		20-55	0-10	0-5*
3	¾ inch to No. 8				100	97-100	40-90	5-20	0-5*
15	1 ½ inch to No. 8	100	100	95-100	70-90		27-53	2-20	0-6*
20	2 inch to No. 8	100	97-100	66-85	45-70		15-40	1-20	0-5*

\* The combined mixture of fine and coarse aggregate shall be such that not more than 1.5 percent passes the No. 200 sieve. This limit shall not be more than 2.5 percent for Class M concrete.

The maximum amount of flat and elongated particles for the coarse aggregate shall not exceed 10% when tested according to SD 212. Flat and elongated particles are defined as those particles having a ratio of maximum to minimum dimension greater than five to one.

**In Section 5 of the Minimum Sampling and Testing Requirements (MSTR) of the Department’s Materials Manual, delete the General Notes and replace with the following:**

General Notes:

All job mix designs for Portland cement concrete paving shall be formulated by an approved testing firm. The concrete paving mix design shall be verified by the Central Laboratory.

The samples of all materials to be used by both the testing firm and the Central Laboratory shall be taken at the same time and split proportionately. Material from proposed aggregate sources must be submitted when a new or modified mix is required or desired. The following quantities are required to be submitted for each mix design:

Fine Aggregate	600 lbs (180 kg)
Coarse Aggregate	1000 lbs (270 kg) and a minimum of 300 lbs for each size
Cement *	200 lbs (90 kg)
Fly Ash **	50 lbs (25 kg)
Air Entraining Agent	8 oz. (240 mL)

Notes:

\* A complete certified Chemical Analysis and Physical Test Report are required for cement other than Dacotah Brand

\*\* A complete certified Chemical Analysis and Physical Test Report are required for fly ash

Quality and other special tests on aggregates that require equipment not available at the Region Materials Laboratory and field labs shall be made in the Central Laboratories on samples representing:

- a) The first 31,500 yd<sup>3</sup> (24,084 m<sup>3</sup>) taken at the start of production.
- b) Each 31,500 yd<sup>3</sup> (24,084 m<sup>3</sup>) thereafter.

The sample sizes for all fine and coarse aggregate Quality tests require 60 lbs (27.2 kg) of material.

Samples of the aggregates shall be submitted to the Central Testing Laboratory at least 40 days prior to anticipated use on the project for Quality and/or Design Mix testing/verification. The Project Engineer shall be notified prior to sampling and submitting mix design aggregate to the Central Lab.

Mix Design Charts:

Chart A

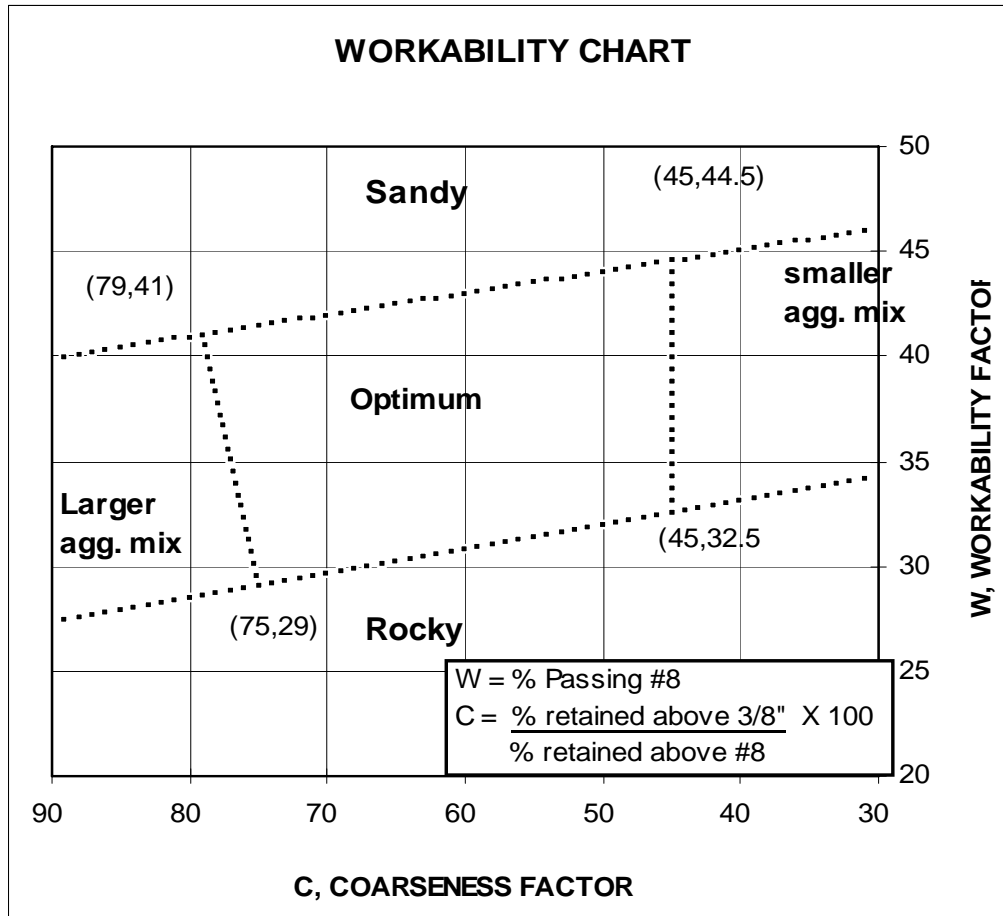


Chart B

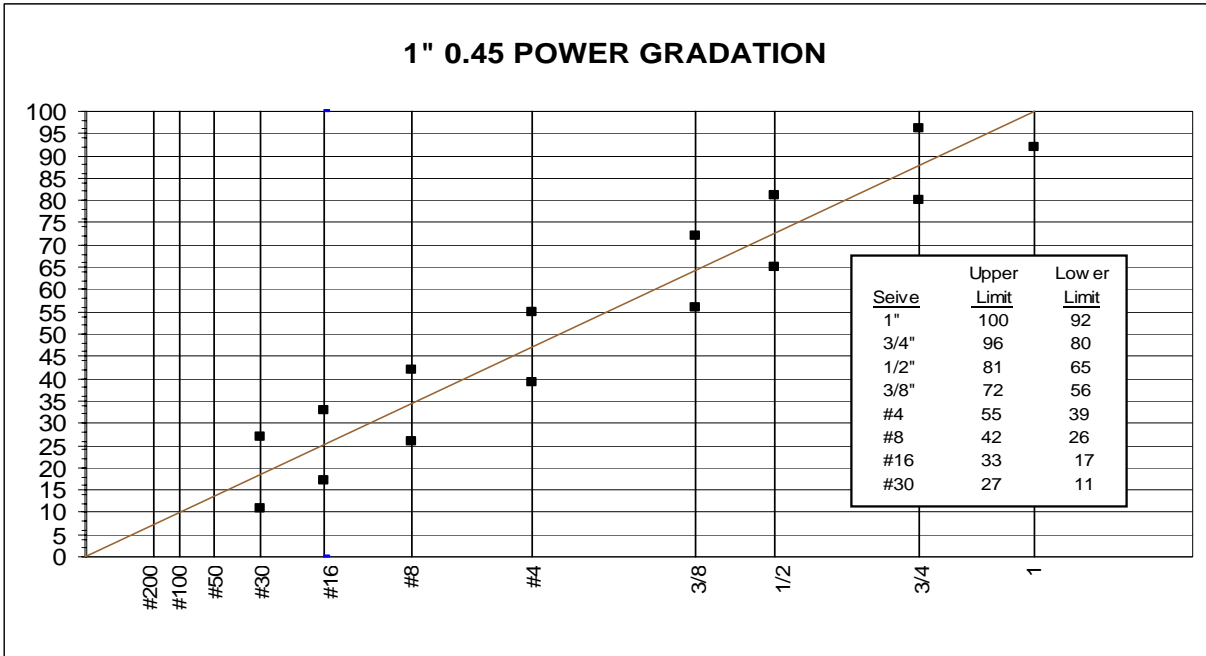
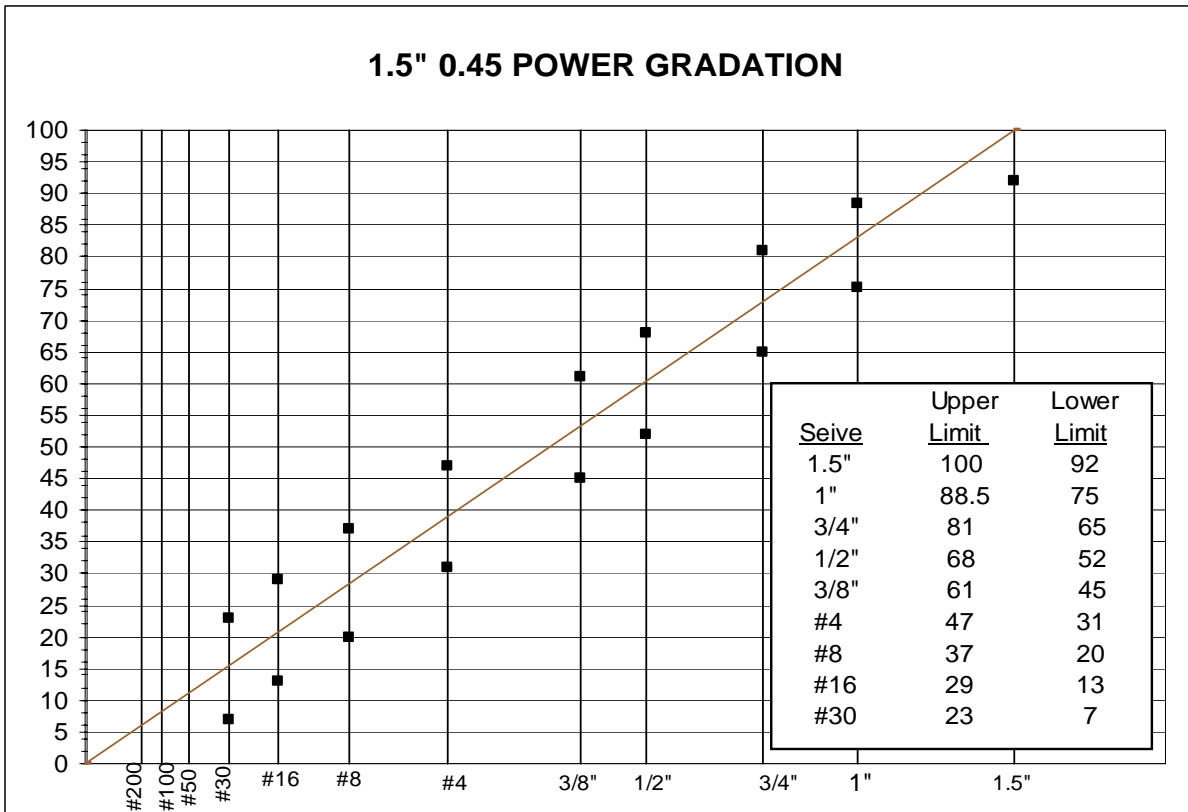


Chart C



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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
TWO COAT EPOXY BRIDGE DECK CHIP SEAL**

**JANUARY 31, 2011**

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**Delete Section 491 of the Standard Specifications for Roads and Bridges and replace with the following:**

**491.1 DESCRIPTION**

This work consists of the preparation of the plans specified existing bridge deck surface and furnishing and placing two coats of an epoxy chip seal on the prepared bridge deck surface.

**491.2 MATERIALS**

**A. Epoxy:** Epoxy shall be a two component epoxy consisting of a base component and a hardener. Both components shall be supplied in tightly sealed undamaged containers. The containers shall be marked to identify each component and shall be clearly labeled with product name, mixing instructions and proportions, recommended storage temperature, lot number, batch number, date of manufacture and quantity contained. The epoxy shall be one of the epoxies from the Approved Products List.

**B. Cover Aggregate:** The cover aggregate shall be processed washed and dried Basalt. Washing shall remove dust covering the aggregate. Recycled cover aggregate shall not be used. Cover aggregate shall conform to the following:

1. The Mohs hardness must be 6.0 minimum.
2. The gradation shall conform to the following:

<u>U.S. Sieve Size</u>	<u>% Passing</u>
No. 4	100
No. 8	30 - 75
No. 16	0 - 5
No. 30	0 - 1

3. The maximum aggregate moisture at the time of application shall not exceed 0.5 %.

4. The aggregate shall be supplied in bags and shall be stored in a dry, moisture-free atmosphere. The aggregate shall be fully protected from any contaminants on the job site and shall be stored so as not to be exposed to rain or other moisture sources. Materials shall remain adequately covered and protected from contamination throughout the project. Any material not adequately covered or found to be contaminated shall not be used.
5. The Contractor shall submit a sieve analysis for the processed washed and dried Basalt and documentation of the Mohs hardness with the certified test reports. No field samples for sieve analysis or hardness shall be required.

### 491.3 CONSTRUCTION REQUIREMENTS

#### A. Surface Preparation:

1. **Grinding:** The bridge deck surface shall be ground prior to placement of epoxy chip seal.

The grinding shall be such that the surface tining and pavement markings are removed as approved by the Engineer.

The grinding shall be performed in the longitudinal direction. The grinding shall result in a parallel corduroy texture consisting of grooves between 0.090 and 0.130 inches (2 and 3 mm) wide. The distance between the grooves shall be between 0.060 and 0.125 inches (1.5 and 3 mm). The peaks of the ridges shall not be greater than 1/16 inch (1.5 mm) higher than the bottom of the grooves. The grinding shall be uniform and shall follow the existing profile of the bridge deck. The grinding process shall not introduce dips and bumps that did not previously exist on the bridge deck surface or in any way decrease the existing riding quality of the bridge deck.

Grinding of the bridge deck shall be accomplished utilizing diamond blades mounted on a self-propelled machine designed for grinding and texturing pavement. The equipment shall be operated in such a manner that it will not damage the underlying deck surface. Grinding equipment that causes ravels, aggregate fractures, or spalls shall not be permitted. Residue or excess water generated by the grinding operations shall be removed with vacuum equipment from the deck surface before the residue has time to set up. Vacuumed residue or excess water shall not be expelled on the approach roadway or shoulder surfaces.



- 2. Shot Blast and Abrasive Blast Cleaning:** After grinding and removal and replacement of loose and delaminated concrete, the entire bridge deck surface shall be thoroughly shot blasted to approximately an International Concrete Repair Institute (ICRI) concrete surface profile CSP-5 (medium shot blast) to remove all foreign materials which may interfere with the bonding or curing of the epoxy chip seal. The shot blasting shall remove all surface laitance and shall expose the coarse aggregate to the satisfaction of the Engineer. Small areas where shot blasting is unable to be performed (curb lines, etc.) shall be cleaned by abrasive blast cleaning to the satisfaction of the Engineer.

Upon completion of the shot blasting and abrasive blasting, the entire bridge deck shall be blown clean with dry compressed air to remove all dust and debris.

Cleaning by shot blasting, abrasive blasting, and compressed air shall be done no more than 24 hours prior to the placement of the epoxy chip seal. In the event that the epoxy chip seal is not placed within 24 hours of shot blasting and abrasive blast cleaning or in the event of rain or other inclement weather contaminating the surface, the surface shall be re-cleaned by abrasive blast cleaning and dry compressed air.

No vehicular traffic shall be allowed on any portion of the deck which has been cleaned and prepared for application of the epoxy chip seal.

## **B. Bridge Deck Epoxy Chip Seal:**

- 1. Seasonal Limitations:** Epoxy chip seals shall only be applied within the seasonal limitation of May 1 to October 15 (inclusive).
- 2. Manufacturer's Representative:** An approved manufacturer's representative shall be present on the jobsite for a minimum of two full production days of epoxy chip seal application.

The manufacturer's representative shall provide the Engineer and the Contractor with a copy of the written recommendations, technical data sheet, and product safety data sheet. In addition, the Contractor shall make a product safety data sheet available to anyone that will be exposed to the epoxy materials.

- 3. Epoxy Application Requirements:** The Contractor shall store, mix, handle, and apply the epoxy in accordance with the manufacturer's recommendations, or as approved by the Engineer, unless otherwise specified by the following requirements:

- a. Epoxy shall not be applied to the bridge deck surface unless the ambient air temperature and the bridge deck surface temperature is between 50° F and 90° F (10° C and 32° C) with the air temperature at least 5° F (2.8° C) above the dew point temperature. In addition, the forecast for the duration of the application period plus four hours after the anticipated completion of the chip seal application shall be such that no rain is expected and temperatures are forecasted to be between 50° F and 90° F (10° C and 32° C) with the air temperature at least 5° F (2.8° C) above the dew point temperature.
- b. The application of the epoxy chip seal system shall not be made on a wet or damp surface. In the event of rain, the surface shall be dried for 24 hours prior to application. In lieu of waiting the 24 hours, ASTM D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” may be used to determine when all moisture is out of the concrete.
- c. The openings of any bridge deck drains shall be temporarily sealed during epoxy placement as approved by the Engineer.
- d. When phased construction of the epoxy chip seal is required, the Contractor shall maintain a straight line between the phases of epoxy placement for both layers by masking the line between phases with duct tape, or other material approved by the Engineer. The masking shall be completely removed before the epoxy achieves initial set and shall be removed in a manner that will not damage the adjacent epoxy. Overlapping the new epoxy chip seal onto existing epoxy chip seal shall not be done.
- e. Prior to mixing the bridge deck needs to be marked in a grid to insure that proper spread rates are achieved.
- f. A prime coat, if required by manufacturer, shall be applied according to manufacturer’s recommendations and will be applied in addition to the two coats of epoxy chip seal.
- g. A coat of epoxy shall be distributed at the manufacturers’ recommended application rate. The application rate shall be a minimum of 1 gallon per 40 square feet.

#### **4. Cover Aggregate Application Requirements:**

- a. After the epoxy is distributed on the application area of the bridge deck surface, a broadcast of cover aggregate shall be made to refusal such that:

- 1) A uniform layer of cover aggregate is attained. (*A non-uniform broadcast will result in an inconsistent epoxy chip seal thickness and a poor riding bridge deck*).
  - 2) There are no visible shiny wet spots after application.
- b. Broadcasting shall be done by hand-seeding or other methods approved by the manufacturer's representative such that the following conditions are met:
- 1) Cover aggregate is required to be broadcast in such a manner that the aggregate is falling vertically to the bridge deck surface to prevent pushing of the epoxy resin.
  - 2) Aggregate coverage is uniform over the application area.
5. **Clean-up of Excess Cover Aggregate:** The epoxy shall be allowed to cure before excess cover aggregate is removed. Cure the epoxy for 2 to 6 hours depending on temperature before removing excess cover aggregate. The epoxy must have sufficient strength to retain aggregate. Excess aggregate will be removed by brooming, high pressured dry air, or vacuuming and shall be disposed of by the Contractor as approved by the Engineer.
6. **Second Coat Epoxy Application:** A second coat of epoxy shall be distributed at the manufacturer's recommended application rate. The application rate shall be a minimum of 1 gallon per 20 square feet. Cover aggregate shall be broadcast as per section 491.3 B.4 of this special provision. In the event of rain before second coat is applied, the surface shall be dried for 24 hours prior to application. If second coat is not applied within 24 hours or traffic is allowed on the first coat, deck must be abrasive blasted prior to application.
7. **Testing:** Pull-off tests shall be performed after the final coat of epoxy chip seal is cured and excess aggregate is removed to verify adequate bond strength of the epoxy to the cover aggregate and concrete substrate. Pull-off tests shall be performed by the Contractor and shall be witnessed by the Engineer. Placement of pull-off test shall be decided by the Engineer and be performed prior to opening to traffic. Pull-off tests may not be performed when the surface temperature is at or above 100° F. One pull-off test shall be performed for each 1200 square feet of epoxy chip seal application for each structure. A minimum of 3 pull-off tests will be required for each structure. The testing shall be performed as follows:
- a. Pull-off test should be performed according to ASTM D4541-02 with the addition of using a diamond or carbide-tipped core drill bit to score

through the chip seal with little or no removal of concrete prior to placement of the detaching assembly.

- b. Pull-off tests with a resulting load of 250 psi or more shall be considered passing.
- c. All pull-off tests with a resulting load of less than 250 psi shall be retested according to the type of failure. There are four possibilities or combinations thereof as described below:
  - 1) Failure in the concrete substrate (concrete failure) - The Contractor shall perform one additional test within one foot of the failing test.
  - 2) Detaching assembly adhesive failure (adhesive failure) - The Contractor shall perform one additional test within one foot of the failing test.
  - 3) Separation of the epoxy chip seal from the concrete surface (epoxy failure) - the Contractor shall perform two additional pull-off tests as described below.
  - 4) Pullout of the aggregate from the epoxy (epoxy or aggregate failure) - The Contractor shall perform two additional pull-off tests as described below.

For failure 3 or 4, the Contractor shall perform two additional pull-off tests. One test shall be performed between 10 ft and 15 ft back from the failing test and one test shall be performed between 10 ft and 15 ft ahead of the failing test. If either of these two additional pull-off tests fails, the epoxy chip seal fails and the failing epoxy chip seal shall be removed and replaced at the Contractor's expense. The limits of the failing epoxy chip seal shall be defined as the epoxy chip seal one-half of the distance back and one-half of the distance ahead to the adjacent passing tests.

When the detaching assembly has been separated from the surface, the damage created by the test shall be repaired using a small amount of the epoxy and aggregate used in the epoxy chip seal.

#### **491.4 METHOD OF MEASUREMENT**

- A. Bridge Deck Grinding:** Measurement will not be made for Bridge Deck Grinding. The plan quantity will be the basis of payment

**B. Abrasive Blasting of Bridge Deck:** Measurement will not be made for Abrasive Blasting of Bridge Deck. The plan quantity will be the basis of payment.

**C. Two Coat Epoxy Bridge Deck Chip Seal:** Measurement will not be made for Two Coat Epoxy Bridge Deck Chip Seal. The plan quantity will be the basis of payment.

**D. Pull-Off Test:** Measurement will not be made for Pull-Off Tests.

#### **491.5 BASIS OF PAYMENT**

**A. Bridge Deck Grinding:** Bridge Deck Grinding, when specified in the plans, will be paid for at the contract unit price per square yard. Payment will be full compensation for all labor, equipment, materials, and all incidental work required to grind the bridge deck surface to the required profile and to remove and dispose of the grinding residue and water.

**B. Abrasive Blasting of Bridge Deck:** Abrasive Blasting of Bridge Deck will be paid for at the contract unit price per square yard. Payment will be full compensation for all labor, equipment, materials, and all incidental work required to shot blast and abrasive blast clean the bridge deck surface of all foreign materials and to remove and dispose of all residue.

**C. Two Coat Epoxy Bridge Deck Chip Seal:** Two Coat Epoxy Bridge Deck Chip Seal will be paid for at the contract unit price per square yard (square meter). Payment will be full compensation for all labor, equipment, materials, and all incidental work required to furnish and install the Two Coat Epoxy Bridge Deck Chip Seal and to remove and dispose of the excess cover aggregate.

**D. Pull-Off Test:** No payment will be made for Pull-Off Tests. All costs related to the testing for labor, test equipment, laboratory, tools and all incidentals required to satisfactorily perform the required work shall be incidental to the contract unit price for Two Coat Epoxy Bridge Deck Chip Seal.

\* \* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
APPROACH SLAB UNDERDRAIN SYSTEM**

**PROJECT NH 0012(161)298, PCN 023C  
BROWN COUNTY**

**FEBRUARY 27, 2012**

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**I. DESCRIPTION**

This work consists of excavating in place materials under the limits of a new approach and sleeper slab and installing a drainage system under the sleeper slab.

**II. MATERIALS**

**A. Porous Backfill:** The porous backfill material shall conform to the requirements of Section 800 with the following modifications:

The material shall consist of natural sand. Crushed material is not acceptable. The percentage of material passing a No. 200 (75 $\mu$ m) Sieve shall not exceed 2.0 percent.

**B. Granular Bridge End Backfill:** The granular bridge end backfill material shall conform to Section 882.

**C. Drainage Fabric:** The drainage fabric shall conform to Section 831.1 (Drainage Fabric – Type B).

**D. Polyethylene Sheeting:** The polyethylene sheeting shall be a minimum thickness of 6 mils (0.152 mm) and shall be sufficiently durable such that it will not puncture or tear when installed as intended.

**E. Drainage Tubing:** The drainage tubing shall be corrugated polyethylene drainage tubing conforming to Section 990.

**F. Black Steel Pipe:** The black steel pipe shall conform to ASTM A53.

### III. CONSTRUCTION REQUIREMENTS

- A. Excavation Requirements:** Excavation for placement of the new approach slab underdrain system shall be done with minimal disturbance to the underlying material.

Excavation for the 8 to 12 inch (200 to 300 mm) wide trench shall be by a method that will provide a nearly vertical sided trench with the least amount of disturbance to the underlying soil. The bottom of the trench shall be graded to drain away transversely from the roadway at a rate of 1/8 inch per foot (10 mm per meter).

- B. Installation Requirements:** After the existing approach pavement has been removed, the ground surface shall be shaped for placement of a soil leveling course. Those areas with predominately 3/8" diameter or larger in place aggregate shall be covered with Type B Drainage fabric prior to placement of the soil leveling course and granular bridge end backfill material. The Engineer will inspect the soil leveling course after it has been installed before the Contractor will be allowed to begin the placement of the granular bridge end backfill material.

The surfaces on which the drainage fabric is to be placed shall be smooth and free of obstructions. Lapped joints in the drainage fabric shall be placed transverse to the direction of flow with one foot (300 mm) minimum overlap in the direction of flow. Vehicles and equipment shall not be operated directly on the drainage fabric.

The 4 inch (100 mm) diameter perforated drainage tubing shall be placed in the bottom of the trench to drain toward the precast concrete headwalls. The porous backfill material shall then be placed in the trench and compacted to the satisfaction of the Engineer.

The soil leveling course, below the granular bridge end backfill, shall be placed and compacted to the satisfaction of the Engineer.

Granular bridge end backfill shall be placed in loose lifts not exceeding 4 inches (100 mm). Compaction shall be accomplished with at least 4 complete passes using a smooth face vibratory roller or vibratory plate compactor. Each layer of granular material shall be thoroughly watered prior to and during compaction.

### IV. METHOD OF MEASUREMENT

- A. Granular Bridge End Backfill:** The quantity specified on the plans is the theoretical quantity based on plans dimensions. The plan quantity will be the



quantity accepted for payment. Field measurement for the soil leveling course and Granular Bridge End Backfill will not be made.

- B. Approach Slab Underdrain Excavation:** The quantity specified on the plans is the theoretical quantity based on plans dimensions. The plan quantity will be the quantity accepted for payment. Field measurement for Approach Slab Underdrain Excavation will not be made.
- C. 4" Underdrain Pipe:** The quantity specified on the plans is the theoretical quantity based on plans dimensions. The plan quantity will be the quantity accepted for payment. Field measurement for 4" Underdrain Pipe will not be made.
- D. Precast Concrete Headwall for Drain:** The Precast Concrete Headwalls for Drain will be measured by the number of complete precast concrete headwalls furnished and installed.
- E. Porous Backfill:** The quantity specified on the plans is the theoretical quantity based on plans dimensions. The plan quantity will be the quantity accepted for payment. Field measurement for Porous Backfill will not be made.

## **V. BASIS OF PAYMENT**

- A. Granular Bridge End Backfill:** The accepted quantity will be paid for at the contract unit price per cubic yard (cubic meter). Payment will be full compensation for all labor, equipment, materials, water, and all other items incidental to furnishing and installing the polyethylene sheeting, drainage fabric, soil leveling course, and granular bridge end backfill material.
- B. Approach Slab Underdrain Excavation:** The accepted quantity will be paid for at the contract unit price per cubic yard (cubic meter). Payment will be full compensations for all labor, equipment, materials, and all other items incidental to excavating the 8" to 12" wide trench and shaping the ground surface to the specified limits, including disposal of the excavated material.
- C. 4" Underdrain Pipe:** The accepted quantity will be paid for at the contract unit price per foot (meter). Payment will be full compensation for all labor, equipment, materials, and all other items incidental to furnishing and installing the drainage tubing, black steel pipe, fittings, and rodent screens.
- D. Precast Concrete Headwall for Drain:** The accepted quantity will be paid for at the contract unit price per each. Payment will be full compensation for all labor, equipment, materials, and all other items incidental to furnish and installing the precast concrete headwalls.

**E. Porous Backfill:** The accepted quantity will be paid for at the contract unit price per ton (metric ton). Payment will be full compensation for all labor, equipment, materials, and all other items incidental to furnishing and installing the porous backfill material.

\* \* \* \* \*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
DURABLE PAVEMENT MARKINGS**

**PROJECT NH 0012(160)298, PCN 023C  
BROWN COUNTY**

**JUNE 27, 2011**

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**I. DESCRIPTION**

Durable pavement markings, for the purpose of the special provision, include epoxy, methyl methacrylate, and polyurea. Water base paint will not be considered a durable marking product.

This work shall consist of grooving pavement for durable pavement marking and furnishing and applying durable pavement markings in accordance with the plans, this provision, and as directed by the Engineer.

**II. MATERIALS**

The Contractor shall submit the type of material to be used at the preconstruction meeting prior to application of the durable pavement marking.

**A. CERTIFICATIONS**

The Contractor shall provide the Engineer with a copy of the manufacturer's product data sheet, component certification, and instructions for material application at least two weeks before application work begins. Whenever the manufacturer's recommendations are more stringent than these provisions, the manufacturer's recommendations shall apply. The Contractor shall provide the Engineer a copy of the certified batch test results, showing the product meets the following requirements, upon delivery of the product to the job site.

**B. MATERIAL REQUIREMENTS**

- 1. Marking Material:** The Contractor shall follow the manufacturer's mixing ratio. No solvents are to be given off to the environment upon application to a pavement surface. The components, when combined, shall not contain or produce volatile solvents. If type II epoxy pavement marking

material is used, it shall be completely free of TMPTA (Tri-Methyl Propane Tri-Acrylate) and other multi-functional monomers. All materials shall be free of lead, cadmium, mercury, hexavalent chromium, and other toxic heavy metals as defined by the United States Environmental Protection Agency.

**a. Color:** The pavement marking colors shall meet the following:

White: The color shall be within the Chromaticity coordinates listed in Tables 1 & 2 when tested in accordance with ASTM E-1347 or ASTM E-1349

Yellow: The color shall match Federal Test Standard Number 595a, Color 13538 or shall be within the Chromaticity coordinates listed in Tables 1 & 2 when tested in accordance with ASTM E-1347 or ASTM E-1349.

**TABLE 1**

Color	Chromaticity coordinates (corner points)								Y values %			
									With Glass Beads		Without Glass Beads	
	x	Y	x	y	x	y	x	y	Min	Max	Min	Max
White	.355	.355	.305	.305	.285	.325	.335	.375	60	--	70	--
Yellow	.560	.440	.490	.510	.420	.440	.460	.400	30	--	35	--

TABLE 1 - Daytime Color Specification Limits for Pavement Markings Material with CIE 2° Standard Observer and 45/0 (0/45) Geometry and CIE D65 Standard Illuminant

**TABLE 2**

Color	Chromaticity coordinates (corner points)							
	1		2		3		4	
	x	y	x	y	x	y	x	y
White	.480	.410	.430	.380	.405	.405	.455	.435
Yellow	.575	.425	.508	.415	.473	.453	.510	.490

TABLE 2 - Nighttime Color Specification Limits for Pavement Marking Retroreflective Material with CIE 2° Standard Observer and Observation Angle = 1.05°, Entrance Angle = 88.76° (beta angle 2 and epsilon = 0°) and CIE Standard Illuminant A

- b. Hardness:** The type D durometer hardness of the material shall not be less than 75 when tested in accordance with ASTM D 2240 after the material has cured for 72 hours at 73°F ± 5°F (23°C ± 2°C).
- c. Adhesion Capabilities:** When tested in accordance with the American Concrete Institute Committee 503 testing procedure, the adhesion must be a minimum of 250 psi, or the failure of the system must take place in the substrate. The prepared specimens shall be allowed to cure for 72 hours at 73°F ± 5°F (23°C ± 2°C).
- d. Weather Resistance:** Apply the mixed epoxy, both white and yellow, at 15 mils ± 1 mil thick to 3 x 6-inch (75 mm x 150 mm) aluminum panels. Do not apply beads to the epoxy sample. Expose the cured sample in an Environmental Test Chamber meeting the requirements of ASTM G 154. Conduct the test for 80 hours at 122°F (50°C), alternating four-hour cycles of condensation and ultraviolet light. At the end of the exposure period, the material shall show no substantial change in color or gloss.
- e. Abrasion Resistance:** When the abrasion resistance of the material is tested in accordance with ASTM D4060 with a CS-17 wheel under a load of 1000 grams for 1000 cycles, the wear index shall be no greater than 82 (The wear index is the weight in milligrams that is abraded from the sample under the test conditions).
- f. Chemical Resistance:** Cured markings shall be resistant to calcium chloride, sodium chloride, fuels, and oils.
- g. Reflective Elements or Glass Beads:** Reflective elements or glass beads as recommended by the durable pavement marking manufacturer shall be used for all durable pavement markings on this project. Glass beads, when used, shall meet the following gradation requirements when tested according to ASTM D 1214:

Percent passing a No. 16 (1.18 mm) sieve	95-100
Percent passing a No. 20 (850 µm) sieve	90-100
Percent passing a No. 30 (600 µm) sieve	70-95
Percent passing a No. 50 (300 µm) sieve	10-35
Percent passing a No. 100 (150 µm) sieve	0-5

Glass beads shall have a minimum of 80% true spheres. Roundness shall be tested in accordance with SD 510.

- 2. Epoxy Materials:** The following requirements, in addition to those specified in Part II.B.1, shall also apply when the Contractor elects to use epoxy pavement markings.

- a. **Classification:** This specification provides for the classification of epoxy pavement marking systems by type.

Type I - A fast cure material suitable for line applications and, under ideal conditions, may not require coning.

Type II - A slow cure material suitable for all applications of pavement markings performed under controlled traffic conditions requiring coning and may require flagging as directed by the Engineer.

Type II epoxy material shall be used for epoxy pavement markings except as specified otherwise in the plans.

- b. **Composition:** Furnish a two component 100 percent solids epoxy material containing no fillers or pigment extenders. Follow the manufacturer's mixing ratio when mixing the two components. Mix the components within plus or minus two and one half percent of the manufacturer's recommended mix ratio.

- c. **Pigment and Epoxy Resin:** The pigment and resin component shall meet the following percentages by weight:

<u>Pigment</u>	<u>White</u>	<u>Yellow</u>
TiO <sub>2</sub> , meeting ASTM D-476,	18-25	12-17
Organic Yellow		7-9
<u>Epoxy Resin</u>	75-82	74-82

Test the epoxy content of the epoxy resin in accordance with ASTM D 1652 and calculate as the Weight per Epoxy Equivalent (WPE) for both white and yellow. Determine the epoxy content on a pigment free basis. The accepted epoxy content range (WPE) is  $\pm 50$  of the manufacturer's target value.

Ensure the activator/curing agent meets the following requirements:

Test the amine value in accordance with ASTM D 2074. Ensure the total amine value meets the manufacturer's target value with the acceptance range being  $\pm 50$  of the target value.

- d. **Tensile Strength:** The tensile strength of the epoxy paint material, when tested in accordance with ASTM D 638, shall not be less than 6,000 psi after 72 hours cure at 73°F ± 5°F (23°C ± 2°C).
3. **Polyurea Materials:** The following requirements, in addition to those specified in Part II.B.1, shall also apply when the Contractor elects to use polyurea pavement markings.

- a. **Composition:** The polyurea pavement marking material shall consist of 100 percent solid two part system formulated and designed to provide a simple volumetric mixing ratio of two components (part A and part B). No volatile or polluting solvents or fillers will be allowed.

Upon heating to application temperature, the material shall not exude fumes which are toxic or injurious to persons or property.

- b. **Pigment:** White polyurea coating materials shall contain not less than 13% by weight rutile titanium dioxide (TiO<sub>2</sub>), meeting ASTM D476. Yellow pigments shall be an organic yellow and contain no heavy metals.
4. **Methyl Methacrylate Materials:** The following requirements, in addition to those specified in Part II.B.1, shall also apply when the Contractor elects to use methyl methacrylate pavement markings.

- a. **Composition:** The system shall be a two component, liquid applied methyl methacrylate compound capable of full cure without external heat sources. Part A shall consist of a 100 percent reactive and solvent free methacrylate resin. Part B shall consist of benzyl peroxide liquid plasticizer.

- b. **Tensile Strength:** The tensile strength of the methyl methacrylate paint material, when tested in accordance with ASTM D 638, shall not be less than 125 psi at break.

- c. **Pigment:** White and yellow methyl methacrylate coating materials shall contain not less than 6% by weight rutile titanium dioxide (TiO<sub>2</sub>) meeting ASTM D476. Organic yellow shall contain pigment sufficient to meet the color standard.

### III. CONSTRUCTION REQUIREMENTS

- A. **Equipment for durable pavement marking:** Equipment furnished shall be designed to apply the type of durable pavement marking material selected including reflecting elements or glass beads. The equipment shall be capable of applying marking materials in a solid and/or intermittent line pattern,

according to the details in the plans. The equipment shall be capable of placing stripes on the left and right sides. The left carriage shall be capable of placing three lines simultaneously with each line in a solid or intermittent pattern in yellow or white. The equipment shall be capable of accumulating the footage of paint applied per gun, individually, each day. Only material application shall activate the footage accumulators. The readout shall be digital and not adjustable. The equipment shall accurately meter the two or more component materials. The equipment shall produce and maintain the mixing head temperature, meeting the manufacturer's specifications.

The equipment shall be capable of applying reflective elements or glass beads in a pressurized system, synchronized with the spray guns. All guns on the spray carriages shall be in full view of the operator(s) during operation.

The equipment in the striping train shall have permanently mounted Type C flashing arrow boards as specified in the Manual on Uniform Traffic Control Devices (MUTCD). All traffic control items that are mounted on the equipment shall be incidental to the other contract items. No separate payment will be made.

**B. Grooving for Durable Pavement Marking:** Grooving for durable pavement markings will not be allowed on bridge decks. All pavement markings on bridge decks shall be surface applied. Unless otherwise specified in the plans, the Contractor shall groove the surface for pavement markings as specified below:

The grooving shall be completed within the following tolerances:

Depth of groove	Sum of pavement marking thickness + 15 mils ±5 mils (Including reflective media)	
Width of groove	5" to 6"	± 1/8"
*Length of skip lines	10'-6"	± 3"
Tapers at begin/end lines	6" to 9"	

\*Additional length may be required as specified in the plans.

The equipment shall be capable of:

- grooving the total width of the groove in one pass or uniform depths with multiple passes
- grooving without causing damage to the pavement joints or joint sealant material
- providing uniform alignment and depth
- moving continuously to permit a mobile traffic work operation

If damage to joints, joint sealant material, backer rod, etc. occurs, the grooving operation shall be stopped and modifications shall be made to the grooving operation to prevent further damage. The Contractor may be



required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused to joints, the joint sealant material, backer rod, etc shall be repaired or replaced by the Contractor, as directed by the Engineer. No additional payment will be made for the repair work or any reapplication of the pavement marking in the area of the repair.

The bottom of the groove shall be uniform and free of loose material. The groove shall be flat and of uniform depth for the entire width of the groove.

**C. Seasonal Limitations:** Pavement markings shall only be placed between May 1 and October 15 (inclusive) or as recommended by the manufacturer.

**D. Application:** Pavement markings shall be placed in accordance with the details shown in the plans. Markings shall not be applied over a longitudinal joint. Markings shall not be applied when the wind or other conditions cause a film of dust to be deposited on the pavement surface before the material can be applied.

The Contractor shall place necessary control points for striping and to indicate necessary starting and cutoff points.

The Contractor shall use a vacuum truck to clean the pavement in the pavement marking areas unless otherwise specified in the plans. The Contractor shall ensure a clean, dry pavement surface free of deleterious material. Cost for this work shall be incidental to the contract unit price for Pavement Marking.

The final location of the pavement marking shall be placed in the area of road way surface as prepared as per Section III.B above.

The material application shall be immediately preceded by a minimum of 80 psi air blast. Placement of marking materials shall be only on clean, dry pavement with air and pavement temperatures at least 50°F. (10°C.) and rising and within the seasonal limitation dates listed above.

The Contractor shall apply the durable pavement markings prior to the section being opened to traffic. If weather conditions prevent placement of pavement marking, temporary pavement markings shall be applied before the section is opened to traffic and then removed prior to durable pavement marking application at no additional cost to the Department.

Edge marking and lane lines on divided roadways shall be applied in the direction of travel.

Tracking of applied pavement marking will not be allowed. The Contractor shall adjust the pavement marking operation to prevent tracking. The "no-tracking" shall be determined by passing over the line with a passenger car or

pickup truck at a speed of 25 to 35 mph (40 to 55 kmph) in a simulated passing maneuver. A line showing no visual deposition of the material to the pavement surface when viewed from a distance of 50-foot (15m) shall be considered as showing “no-tracking” and conforming to the requirement for “no-track”.

All material heated over manufacturers upper limit on temperature shall be discarded.

#### **E. Durable Pavement Marking Application Rates & Thickness:**

The pavement marking shall be applied at the rate and thickness as recommended by the manufacturer. Pavement markings applied at a thickness less than 20 mils will not be accepted.

#### **F. Reflective Elements or Glass Beads:** Reflective element or glass beads shall be applied at a rate necessary for meeting minimum levels of retro-reflectivity.

For sprayable markings, reflective elements or glass beads shall be applied immediately after the placement of the marking.

#### **G. Application Tolerances:**

- The length of the stripe shall not vary more than plus or minus 3 inches (75 mm) from the plans requirement.
- The minimum width of the stripe shall be its nominal width as required in the plans with 1/2” (12 mm) greater than nominal width allowed provided the variation is gradual and does not detract from the general appearance.
- The stripe shall have the same general appearance and width in both daytime and nighttime conditions (no shadowing or shading).
- The length of a 40-foot (12-meter) cycle length (stripe and gap) shall not vary more than 3 inches (75 mm).
- The alignment from the plans requirement or existing markings shall not vary more than plus or minus 1 inch (25 mm) in 200 feet (61 meters).
- The maximum longitudinal deviation from the existing markings at the beginning of the painted roadway segment shall not vary more than plus or minus 6 inches (150 mm).
- Placement of cycle shall coincide with the existing markings at each end of the project limits.

Any markings that are outside of these tolerances will be removed and replaced by the Contractor at no cost to the Department. Removal shall be performed utilizing equipment that is not detrimental to the final surface, as required by the Engineer. Establishment of application tolerances shall not

relieve the Contractor of the responsibility to comply as closely as practicable with plan dimensions.

- H. Retro-reflectivity Testing General:** The Department will take retro-reflectivity readings on the pavement marking lines no sooner than 3 days and no later than 30 days after the completion of all line applications required for an individual highway route using a portable retro-reflectometer conforming to 30-meter geometry. Retro-reflectivity readings will be taken on a test location with cleaning being limited to light hand brooming.

Durable pavement markings not conforming to the Retro-reflectivity requirements shall be removed and replaced. If replacement of markings can not be applied within the same year, the contractor shall schedule subject work to be completed no later than June 15<sup>th</sup> in the following year. Upon replacement, the retro-reflectivity testing process will be done again requiring new readings.

The Department will randomly select one test location per mile of each edgeline and one test location per mile of centerline (solid and/or skip line will be considered as one centerline). The Department will randomly select one test location on each ramp edgeline and one test location on each ramp gore area. Three retro-reflectivity readings will be taken at each test location. The three readings will be averaged and become the reading for that test location.

- I. Retro-reflectivity Testing Divided Four Lane Two Way Roadways:** Each edge line and lane line will be tested. Three readings will be taken at each test location on each edge line and lane line in the direction of travel and will become the test reading for that test location.
- J. Retro-reflectivity Testing Undivided Two and Four Lane Two Way Roadways with Center Turn Lane:** Each edge line and lane line will be tested. Three readings will be taken at each test location on each line in the direction of travel and will become the test reading for that test location.

Each combination solid yellow, skip yellow lines for the turn lane will be tested. Three readings will be taken on each line in one direction, the reflectometer will be turned 180 degrees and three more readings on each line will be taken. The six readings for the centerline(s) will be averaged and become the test reading for that test location. If the random location does not fall on a line, the marking(s) closest to the random location will be tested.

- K. Retro-reflectivity Testing Two Lane Two Way Roadways:** Each edge line and centerline(s) will be tested. Three readings will be taken at each test location on the edge lines in the direction of travel. Three readings will be taken on centerline in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline(s) will be averaged and become the test reading for that test

location. If the random location for the centerline(s) does not fall on a line, the marking(s) closest to the random location will be tested.

**L. Retro-reflectivity Testing Interstate Interchange Off and On Ramps:** Each edge line will be tested. Three readings will be taken at each test location on the edge line in the direction of travel, the three readings averaged and the result will become the test reading for that test location.

**M. Retro-reflectivity Testing Interstate Interchange Off and On Ramp Gore Areas:** The 12" edge line on mainline interstate and the 12" edge line on the ramp that, in combination, form a "V" at an interstate gore area will be tested. Three readings will be taken at each test location on the edge line in the direction of travel, the three readings averaged and the result will become the test reading for that test location.

**N. Retro-reflectivity Requirements:** The pavement markings shall meet the following minimum retro-reflectivity requirements.

Initial Readings (within 3 - 30 days of the line application):

<b>Pavement Marking Color</b>	<b>Minimum Value</b>
White	331 mcd/m <sup>2</sup> /lux
Yellow	206 mcd/m <sup>2</sup> /lux

**O. Non-conformance:** All pavement markings not conforming to the requirements of the contract will be considered under the provisions of Section 5.3 and may be required to be removed. Additional retro-reflectivity readings will be taken by the Department to determine the limits of removal. The removal shall be accomplished using suitable sand blasting or grinding equipment unless the Engineer authorizes other means. The removal process shall remove at least 90% of the deficient line, with no excessive scarring of the existing pavement. The removal width shall be one inch wider all around the nominal width of the pavement marking to be removed. Removal and replacement of the pavement markings shall be at Contractor's expense, with no cost incurred by the State.

#### **IV. METHOD OF MEASUREMENT**

**A. Grooving for Durable Pavement Marking:** Grooving will be measured to the nearest foot (0.1 meter), along the length of the groove for the width of the grooving specified. Grooving for areas will be measured to the nearest square foot (0.1 square meters). Grooving for arrows will be measured per each.

**B. Durable Pavement Marking:** Durable pavement markings, of the width and color specified, will be measured to the nearest foot (0.1 meter).

**C. Durable Pavement Marking, Arrow:** Durable pavement marking arrows will be measure by count of each type specified.

**D. Durable Pavement Marking, Area:** Durable pavement marking areas will be measured to the nearest square foot (0.1 square meters).

**V. BASIS OF PAYMENT**

**A. Grooving for Durable Pavement Marking:** Cost for Grooving for Durable Pavement Marking will be paid at the contract unit price per foot (0.1 meter), each, or square foot (0.1 square meters) as required by the respective contract item. Payment will be full compensation for equipment, labor, materials, and incidentals necessary.

**B. Durable Pavement Marking:** Cost for durable pavement marking will be paid at the contract unit price per foot (0.1 meter) for Durable Pavement Marking. Payment will be full compensation for all items necessary to complete the work including, but not limited to, furnishing and installation of materials, labor and equipment, all traffic control as required and all incidentals necessary.

**C. Durable Pavement Marking, Arrow:** Durable pavement marking arrows of the type specified will be paid for at the contract unit price per each.

**D. Durable Pavement Marking, Area:** Durable pavement marking areas will be paid for at the contract unit price per square foot (0.1 square meters).

\* \* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
PORTLAND CEMENT CONCRETE  
PAVEMENT OVERLAY (THICK)**

**PROJECT NH 0012(161)298; PCN 023C  
BROWN COUNTY**

**FEBRUARY 13, 2012**

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For all Portland Cement Concrete overlays irrespective of thickness, make the following modifications to Section 380 of the Standard Specifications for Roads and Bridges.

**Delete Section 380.1 and replace with the following:**

**380.1 DESCRIPTION**

This work consists of a PCC overlay over an existing pavement where a geotextile bond breaker fabric is placed on top of the existing pavement.

**Add the following to Section 380.2:**

**M. Geotextile Bond Breaker Fabric:** Section 831.

**Delete Section 380.3 B.3 and replace with the following:**

- 3. Spreading and Finishing Equipment:** The spreading equipment shall consist of a mechanized device to place and provide a rough strike off of the concrete. The concrete shall be unloaded into an approved mechanical concrete spreader and deposited uniformly across the geotextile bond breaker fabric, pavement, subgrade, or subbase as close as possible to its final position. The use of a mechanical spreader may be waived provided the concrete hauling equipment is equipped with a discharge system capable of distributing the concrete uniformly without segregation across the width of paving and meets the approval of the Engineer. The spreader shall run on forms when forms are used or on wheels or tracks when slip forming. The mechanical concrete spreader shall be self-propelled and shall be capable of spreading the concrete mix

to the desired cross sections. The spreader shall be easily adjustable to spread different elevations of concrete.

Slipform paving equipment shall have the direction of forward motion and grade (vertical elevation) controlled by an electronic sensing device. The electronic sensing device shall either follow a taut string line or shall be controlled by a GPS system capable of meeting the alignment, grade, and cross slope requirements. The slipform paving equipment shall be designed to spread, consolidate, screed, and float finish the freshly placed concrete so that a minimum of hand finishing will be necessary to provide a dense, homogenous pavement.

**Delete Section 380.3 C and replace with the following:**

**C. Preparation:**

- 1. Placing Geotextile Bond Breaker Fabric:** Prior to the placement of the geotextile bond breaker fabric, the Contractor shall clean the existing pavement surface of all loose or adhering foreign material.

The geotextile bond breaker fabric shall be rolled out without excess wrinkles and folds. The geotextile bond breaker fabric shall not be placed more than 7 calendar days prior to paving.

The geotextile bond breaker fabric shall be securely fastened down with bolts/nails punched through 2 - 2.75 inch (50-70 mm) galvanized washers/discs at least every 6 feet (1.8 meters) both longitudinally and transversely. Additional fasteners may be required to ensure the geotextile bond breaker fabric does not shift or fold prior to or during concrete placement.

Where the geotextile bond breaker fabric is spliced or overlapped, the geotextile bond breaker fabric shall be overlapped  $8 \pm 2$  inches ( $200 \pm 50$  mm). In no case shall more than three layers of the geotextile bond breaker fabric overlap.

The geotextile bond breaker fabric shall extend beyond the edge of the new concrete as shown in the typical sections.

The Contractor shall maintain the geotextile bond breaker fabric after it is placed throughout its entire length until the PCC overlay and shoulder material is completed. The Contractor shall correct any deficiencies to the satisfaction of the Engineer. Driving on the geotextile bond breaker fabric shall be kept to a minimum and shall not include tight radius turns or hard accelerations or braking.



The Contractor shall repair any geotextile bond breaker fabric that is damaged. The Contractor shall also remove and replace any geotextile bond breaker fabric that is left exposed for more than 7 calendar days. No additional payment will be made to repair, remove, or replace geotextile bond breaker fabric.

2. **Stationary Side Form Method:** Forms shall be set to line and grade. Dowel assemblies, if required, shall be accurately placed in advance of concrete placement. The use of automatic dowel bar inserters will not be allowed.

The form shall be firmly in contact with the geotextile bond breaker fabric for the entire length of the form. Forms shall be staked into place with not less than three pins for each 10 foot (3 meter) section. A pin shall be placed at each side of every joint.

Form sections shall be tightly locked and free from play or movement. Forms shall be cleaned and oiled prior to placing concrete.

Alignment and grade elevations of the forms shall be checked and corrections shall be made before placing concrete. When forms have been disturbed or the grade has become unstable, the forms shall be reset and rechecked.

3. **Slip Form Method:** Dowel assemblies, if required, shall be accurately placed in advance of concrete placement. The use of automatic dowel bar inserters will not be allowed.

**Delete Section 380.3 H and replace with the following:**

- H. **Placing Concrete:** The Contractor shall not place concrete when the air or paving surface temperature is below 45° F (7° C). Forms and steel which will come in contact with the concrete shall also not be below 45° F (7° C) at the time of concrete placement.

If the surface temperature of the geotextile bond breaker fabric is above 110° F (40° C), the Contractor shall apply water to the surface of the geotextile bond breaker fabric. The water shall be applied at a time and at a rate such that no pools of water form.

The temperature of the freshly mixed concrete at the time of placement shall not be less than 50° F (10° C) nor more than 90° F (32° C).

The concrete shall be deposited on the geotextile bond breaker fabric so as to require as little re-handling as possible. Unless hauling equipment is equipped to discharge the concrete without segregation, the concrete shall be unloaded into an approved spreading device and mechanically spread on the geotextile bond breaker fabric without segregation of the materials.

Necessary hand spreading shall be done with shovels. Rakes or vibrators shall not be used for spreading concrete. Workmen shall not be allowed in the freshly mixed concrete with boots or shoes coated with foreign substances.

Vehicles tracking earth or foreign substances will not be allowed to drive through or back into fresh mixed concrete. Equipment dropping earth or foreign substances from the unit shall not be allowed over the fresh mixed concrete.

The concrete shall be consolidated against and along the faces of all forms by vibrators. Vibrators shall not come in contact with a joint assembly, the grade, or a side form. The vibrator shall not be operated longer than 10 seconds in any one location.

All concrete material which falls on or is worked into the surface of a completed slab shall be removed immediately.

**Delete Section 380.3 I and replace with the following:**

- I. Protection of Concrete:** The concrete surface temperature shall be maintained above 40° F (4° C) until the concrete has attained a compressive strength of 1,500 psi (10.5 MPa). This protection shall be in addition to one of the curing methods specified in Section 380.3 P. Concrete damaged by cold weather shall be removed and replaced at the expense of the Contractor.

Covering materials such as insulating blankets, burlap mats, or plastic sheeting shall be available for the protection of the pavement surface. The pavement shall not be opened to traffic until meeting the requirements of Section 380.3 T.

When rain appears imminent, paving operations shall stop and the unhardened concrete shall be covered with the protective covering. Pavement not properly protected from weather shall be subject to corrective action as determined by the Engineer

**Delete Section 380.3 M.1 and replace with the following:**

- 1. Longitudinal Sawed Joints:** When specified in the plans, deformed steel tie bars shall be placed perpendicular to the longitudinal joints by approved

methods. Tie bars shall not be painted or coated with asphalt or other material, or enclosed in tubes or sleeves.

Longitudinal sawed joints shall be cut to the dimensions specified. Suitable guidelines or devices shall be used to assure cutting the joint to a true line. The sawed joint will not require reapplication of curing compound.

Sawing of the longitudinal joint shall commence as soon as the concrete has hardened sufficiently to permit sawing without raveling. All joints shall be sawed to the specified depth as shown on the plans before uncontrolled shrinkage cracking occurs.

Repair or correction of uncontrolled cracks shall be as directed by the Engineer and at the expense of the Contractor.

**Delete Section 380.3 M.3 and replace with the following:**

- 3. Transverse Contraction Joints:** Transverse contraction joints shall be created by sawing. The initial saw cut shall commence when the concrete has hardened sufficiently to permit sawing without raveling. Joints shall be sawed before uncontrolled shrinkage cracking takes place. If necessary, the initial sawing operations shall be performed on both day and night, regardless of weather conditions. The sawed joint will not require reapplication of curing compound

If a soft cut style saw is used, the soft cut shall remain approximately 1" (25mm) from the edges of the concrete slab to control spalling at the edge. Additionally if a soft cut is used, the Contractor shall complete the saw cut for the entire width and to the required depth before the end of the 72 hour curing period.

**Add the following paragraph to Section 380.3 M.5:**

The geotextile bond breaker fabric shall either be protected from contamination and damage or shall be removed and replaced in the area of the transverse construction joint in accordance with Section 380.3 C.1. The geotextile bond breaker fabric shall not be cut during the sawing of the transverse contraction joint.

**Delete Section 380.3 U and replace with the following:**

- U. Tolerances in Alignment, Grade, Cross Slope, and Pavement Thickness:** Alignment, grade, cross slope, and pavement thickness will be monitored by

the Engineer. Adjustments to the alignment, grade, cross slope, and pavement thickness may be required as directed by the Engineer.

**Delete Section 380.4 and replace with the following:**

#### **380.4 METHOD OF MEASUREMENT**

- A. Portland Cement Concrete Overlay, Furnish:** Portland Cement Concrete Overlay, Furnish will be measured to the nearest 0.1 cubic yard (0.1 cubic meter). Quantities of Portland Cement Concrete Overlay, Furnish that are more than 6% over the plans estimated quantity will not be measured for payment unless additional quantity is ordered by the Engineer in writing. If the Department approved new profile results in an adjustment to the plans estimated quantity of Portland Cement Concrete Overlay, Furnish the adjusted plans quantity will be used in determining the percent overrun. Measurement of cubic yards will be based upon batch tickets and converted to cubic yards. Mix design unit weights will be used for converting batch ticket weights to cubic yards. Quantities of Portland Cement Concrete Overlay, Furnish that is rejected will not be measured for payment.
- B. Portland Cement Concrete Overlay, Placement:** Portland Cement Concrete Overlay, Placement will be measured to the nearest 0.1 square yard (0.1 square meter).
- C. Geotextile Bond Breaker Fabric:** Geotextile Bond Breaker Fabric will be measured to the nearest 0.1 square yard (0.1 square meter). No measurement will be made for geotextile bond breaker fabric overlaps.
- D. Dowel Bar Assemblies:** Dowel bar assemblies will be measured by the actual number of bars furnished and installed.

**Delete Section 380.5 and replace with the following:**

#### **380.5 BASIS OF PAYMENT**

- A. Portland Cement Concrete Overlay, Furnish:** Portland Cement Concrete Overlay, Furnish will be paid for at the contract unit price per cubic yard (cubic meter).

Payment will be full compensation for furnishing all materials, mixing, delivering the materials to the roadway, and all incidentals necessary to furnish the concrete material.

**B. Portland Cement Concrete Overlay, Placement:** Portland Cement Concrete Overlay, Placement will be paid for at the contract unit price per square yard (square meter).

Payment will be full compensation for all labor, equipment, and all incidentals necessary to place the Portland cement concrete overlay and to saw and seal joints. Payment will also be full compensation for water used to moisten the geotextile bond breaker fabric ahead of the paver and for materials, equipment, labor, and incidentals used for curing the concrete.

**C. Geotextile Bond Breaker Fabric:** Geotextile Bond Breaker Fabric will be paid for at the contract unit price per square yard (square meter).

Payment will be full compensation for all labor, materials, equipment, and all incidentals necessary to furnish and install the fabric. Payment will be based on plans quantity unless changes are ordered in writing.

**D. Dowel Bar Assemblies:** Dowel bar assemblies will be paid for at the contract unit price per each dowel bar. Payment will be full compensation for labor, materials, equipment, and all incidentals necessary to furnish and install the assemblies. Payment will be based on plans quantity unless changes are ordered in writing.

**E. Profilograph:** Payment will not be made. The Contractor shall absorb all costs involved in the furnishing, operating and calibration of the profilograph.

**Add the following to Section 831.1:**

The geotextile bond breaker fabric shall comply with the requirements of Table 1 shown below:

**Table 1. Specifications for geotextile interlayer material**

Property	Requirements <sup>1</sup>	Test Procedure
Geotextile type	Nonwoven, needle-punched geotextile, no thermal treatment (calendaring or IR)	Manufacturer Certificate of Compliance
Color	Uniform/nominally same-color fibers, White	Visual Inspection
Mass per unit area	≥ 450 g/m <sup>2</sup> (13.3 oz/yd <sup>2</sup> ) ≤ 550 g/m <sup>2</sup> (16.2 oz/yd <sup>2</sup> )	ASTM D 5261
Thickness under load (pressure)	[a] At 2 kPa (0.29 psi): ≥ 3.0 mm (0.12 in) [b] At 20 kPa (2.9 psi): ≥ 2.5 mm (0.10 in) [c] At 200 kPa (29 psi): ≥ 1.0 mm (0.04 in)	ASTM D 5199
Wide-width tensile strength	≥ 10 kN/m (685 lb/ft)	ASTM D 4595
Wide-width maximum elongation	≤ 130%	ASTM D 4595
Total Heat / Solar Reflectance	80%	ASTM G 173-03

**Table 1. Specifications for geotextile interlayer material**

<b>Property</b>	<b>Requirements<sup>1</sup></b>	<b>Test Procedure</b>
Water permeability in normal direction under load (pressure)	At 20 kPa (2.9 psi): $\geq 1 \times 10^{-4}$ m/s (3.3x10 <sup>-4</sup> ft/s)	Mod. ASTM D 5493 or ASTM D 4491
In-plane water permeability (transmissivity) under load (pressure)	[a] At 20 kPa (2.9 psi): $\geq 5 \times 10^{-4}$ m/s (1.6x10 <sup>-3</sup> ft/s) [b] At 200 kPa (29 psi): $\geq 2 \times 10^{-4}$ m/s (6.6x10 <sup>-4</sup> ft/s)	Mod. ASTM D 6574 or ASTM D 4716
Weather resistance	Retained strength $\geq 60\%$	ASTM D 4355 @ 500 hrs. exposure
Alkali resistance	$\geq 96\%$ polypropylene/polyethylene	Manufacturer certification of polymer

1. Minimum average roll value (MARV) requirements shall conform to AASHTO M288 which require a 97.7 percent degree of confidence.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
CONTRACTOR STAKING**

**PROJECT NH 0012(160)298, PCN 023C  
BROWN COUNTY**

**FEBRUARY 27, 2012**

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Add the following to Section 5.8 of the Standard Specifications:

**SECTION 5.8  
CONSTRUCTION STAKES, LINES AND GRADES  
CONTRACTOR GRADE STAKING**

**A. DESCRIPTION**

Construction staking shall be performed by the Contractor. The staking work includes, but is not limited, to re-establishing the mainline and intersecting road centerlines; establishing a new centerline profile; establishing control points and benchmarks; taking original and final cross sections of all Contractor secured borrow sources and State designated borrow sources; taking cross sections of all topsoil stockpiles; and staking right-of-way, easements, and fence.

The new centerline profile must be submitted for approval two weeks prior to setting any horizontal and vertical control on the project. The centerline profile shall represent the top of the finished concrete pavement. The profile shall be such that the new pavement will smoothly transition into each existing bridge beginning and ending point. Under no circumstances will adjustments to the Design Centerline Profile be allowed without prior approval of the Engineer. Adjustments of the gradeline as approved, shall not, however, relieve the Contractors responsibility of adhering to the smoothness specifications.

The Contractor shall perform all construction layout and reference staking necessary for the accurate control and completion of all grading, paving, drainage, median crossovers, signing, pavement marking, permanent benchmarks and all other appurtenances required for the complete construction and acceptance of the work. The layout shall include, but is not limited to, slope staking and slope stake referencing, paving hub staking, staking of culvert pipes,

and performing the miscellaneous staking as described in the plans and in this specification.

The staking shall be performed according to the Department Survey Manual, except as modified by this specification.

## **B. MATERIALS**

The Contractor shall furnish all staking materials of adequate quality for the purpose intended including all stakes, stake chasers, paint, field notebooks, and all other materials and equipment necessary to properly perform the required work.

## **C. CONSTRUCTION REQUIREMENTS**

**1. General:** The work shall be done under the supervision of a qualified surveyor or engineer who is experienced and competent in road and bridge construction surveying and staking. The surveyor or engineer shall be available to review work, resolve problems, and make decisions in a timely manner. A crew chief, competent to perform all required surveying duties, shall supervise the staking in the absence of the surveyor or engineer from the project. Two weeks prior to staking, the Contractor shall submit to the Engineer for review the qualifications and work experience history of the surveyor or engineer who will supervise the construction survey work.

The Contractor shall also submit the proposed starting date of the staking, and the anticipated surveying work schedule.

All stakes, references, line, grades, and batter boards required shall be furnished, set, and properly referenced by the Contractor. The survey and staking shall be consistent with standard engineering practices and approved by the Engineer.

The Contractor shall be solely responsible for the accuracy of the staking. All errors and discrepancies found in previous surveys, plans, specifications, or special provisions shall be called to the attention of the Engineer, prior to proceeding with the survey work.

Supervision of the construction staking personnel shall be the Contractor's responsibility. Any deficient survey layout or staking that results in construction errors shall be corrected by the Contractor at no additional cost to the Department.

Field notes shall be kept in conventional handwritten notebooks or in a computerized form acceptable to the Engineer in a clear, orderly, and neat manner. The notebooks shall become the property of the Department upon



completion of the project. The notebooks shall provide enough information such that quantity measurements are verifiable by the Department. Field notes are subject to inspection by the Engineer at any time.

The Contractor shall be required to submit any required quantity calculations and notes to the Engineer no later than 60 calendar days after completion of the survey.

The Department will set reference control points and the Contractor shall be responsible for the preservation of ties and references to all control points necessary for the accurate re-establishment of all base lines and centerlines. The Contractor shall establish benchmark elevations. It is the responsibility of the Contractor to verify the accuracy of the elevation of each of the benchmarks prior to them being used on this project.

The Contractor shall furnish wooden hubs or steel pins of sufficient length to provide a solid set in the ground. Guard stakes or alternate acceptable to the Engineer shall be placed adjacent to the paving hub with stationing and a grade to the top of slab written on the stake. Paving Hubs that are damaged, destroyed, or made unusable shall be replaced by the Contractor at no additional expense to the Department.

The Engineer may check the accuracy and control of the Contractor's survey work at any time. The checks performed by the Engineer will not relieve the Contractor of the responsibility for the accuracy of the survey layout or the construction work. If the random checks show that the grade is out of tolerance, the Contractor may be required to set additional stakes, at the discretion of the Engineer, at no additional cost to the Department.

2. **Slope Staking:** Because cross-sections are not provided, the Contractor shall determine catch points by utilizing existing elevations and typical sections. The slope stake reference hubs shall be installed behind the slope stake at a sufficient distance to ensure protection during construction and as approved by the Engineer.

The slope stakes shall be set at 100-foot intervals on tangents and at 50-foot intervals in horizontal curves. The horizontal tolerance is  $\pm 0.2$  foot and the vertical tolerance is  $\pm 0.1$  foot. The slope stake reference hubs shall reference the subgrade shoulders and be set with a horizontal tolerance of  $\pm 0.2$  foot and a vertical tolerance of  $\pm 0.05$  foot.

Slope stake notes shall be provided by the Contractor.

3. **Grade Staking:** When paving hub staking is required, the paving hubs shall be set at a maximum longitudinal distance of double the transverse joint

spacing. The paving contractor may require a closer spacing. The horizontal and vertical tolerance for the paving hubs or grade nails is  $\pm 0.02'$ .

Paving hub notes shall be provided by the Contractor.

All additional surveying required to; tie the mainline pavement into the intersecting roads, provide blue tops and/or paving hubs for acceleration/deceleration lanes, ramps, median crossovers, and adjustment of the mainline grades shall be incidental to the grade staking item.

Any additional staking that the contractor feels is necessary to successfully complete this requirement is the responsibility of the contractor and shall be incidental to the contract unit price for grade staking.

**4. Miscellaneous Staking:** Miscellaneous staking shall include the following work:

- a. Approach road staking.
- b. Topsoil measurement and computation of quantities.
- c. Special ditch staking.
- d. Staking of signs, delineators, pavement markings, guardrail, curb & gutter, light poles, conduit, junction boxes, and related items (Staking is for all aspects, i.e. detours, temporary and permanent).
- e. Right-of-way staking including easement lines and fence post panels.
- f. Pipe and storm sewer staking including drop inlets, manholes, cattle passes, and related items. If additional pipe, storm sewer, drop inlets, manholes, or cattle passes are required which are not shown on the plans, the staking shall be paid in accordance with the bid item Three Man Survey Crew.
- g. Mark limits of removal items (trees, foundations, curb & gutter, sidewalk, etc.).
- h. Detours, roadway diversions, and crossovers (the Contractor shall furnish all notes required).
- i. Existing pipe ends (to mark locations and prevent damage).
- j. Final and original cross sections of Contractor and State furnished borrow pits and computations. Earthwork computations shall be performed by the average end method.
- k. Resetting horizontal and vertical control, if disturbed.
- l. Approach slab and sleeper slab staking.
- m. Staking of sidewalks and curb ramps.

Pipe staking shall be performed so that the pipe fit the field conditions. The plan pipe locations and grades are approximated. Minor location and grade adjustments that are necessary to properly stake the pipe shall be approved by the Engineer prior to pipe installation.

Stake the slope catch points to determine the inlet and outlet locations. Set reference stakes for the inlet and outlet locations. Stake ditches and special inlet and outlet grades to ensure proper drainage. The staking of manholes and drop inlets shall be included in pipe and storm sewer staking. Precast cattle passes shall be staked similar to drainage pipes.

The horizontal tolerance for the pipe and storm sewer staking is  $\pm 0.05$  foot and the vertical tolerance is  $\pm 0.03$  foot.

The pipe staking notes shall be kept on a DOT Form 214.

- 5. Three Man Survey Crew:** The use of the three man survey crew is intended for surveying not included in the plan notes and this special provision. The three man survey crew may be used to perform additional survey work when it is caused or required by the Department. A written order from the Engineer will be used to authorize the hourly survey crew item and will describe the staking to be performed by the Contractor.
  
- 6. Graded Centerline Staking:** The Contractor shall take centerline and edge of new concrete profile elevation at 100-foot intervals in tangents and at 50-foot intervals in superelevated curves for the entire length of the project. Profile elevations shall also be taken 500 feet off each end of the project on centerline and on each edge of the new pavement to provide a smooth transition. Profile elevations shall also be taken on the intersecting roads and 500 feet back on to the pavement to remain in place to provide a smooth transition. Intersecting road profile elevations shall be incidental to graded centerline staking. The centerline profile and edge of pavement elevation shall be plotted and the Contractor shall select a grade line that corrects all existing dips and bumps and ensures a minimum of 5" of new concrete pavement is placed. The Contractor shall incorporate the superelevation rates, transition lengths, and locations of superelevation as shown in the plans.

The corrected profile grade shall provide for a smooth gradeline in the concrete pavement. The Engineer's review and approval is required before the Contractor will be allowed to begin setting paving hubs.

Time spent in the office processing and plotting grades, reducing notes, and performing grade adjustments and general calculations for profiles (existing and proposed) will be incidental to the Graded Centerline Staking item.

Any additional staking that the contractor feels is necessary to successfully complete this requirement is the responsibility of the contractor and shall be absorbed in the item grade staking.

#### **D. METHOD OF MEASUREMENT**

Refer to the Table of Contractor Staking in the plans for more detail on how quantities were calculated.

1. **Slope Staking:** Slope staking will not be measured. The plan quantity will be the final quantity unless the Engineer orders additional staking in writing.

All combinations of roadway widths will be considered as one set of slope stakes. On projects with ramps, the ramps will be considered a roadway and will be included in the slope staking quantity. All additional slope staking for intersections shall be incidental to the slope staking.

2. **Grade Staking:** Grade staking will not be measured. The plan quantity will be the final quantity unless the Engineer orders additional staking in writing.

A two-lane roadway will be considered as one set of grade stakes. Multi-lane roadways in excess to two-lanes will have the plan quantity proportionately increased. (For example, a three lane roadway will be equivalent to 1.5 times the quantity for a two-lane roadway.) On projects requiring grade staking on ramps, the ramps will be considered a two-lane roadway for measurement. Acceleration/deceleration lanes and turning lanes for intersecting roads, and median crossovers will not be considered an additional roadway. All additional grade staking for acceleration/deceleration lanes, turning lanes, intersecting roads, grade adjustments and median crossovers shall be incidental to the mainline grade staking.

3. **Miscellaneous Staking:** Miscellaneous staking will not be measured. The plan quantity will be the final quantity.

4. **Three Man Survey Crew:** Three Man Survey Crew will be measured by the hour with the following restrictions:

The use of a three man survey crew will be for the work ordered by the Engineer. The measured quantity will be the actual time that the survey crew is working on the project physically performing the field survey work. Travel time for the survey crew will not be measured for payment. The use of a two man survey crew may be used with the Engineers prior approval. When a two man survey crew is used measurement for payment will be at 75 percent of the hours for a three man crew. (For example 8 hours of two man survey crew will result in 6 hours measured for payment as three man survey crew time.)

The use of a one man survey crew may be used with the Engineers prior approval. When a one man survey crew is used, measurement for payment will be at 50 percent of the hours for a three man crew. (For example, 8 hours of a one man survey crew will result in 4 hours measured for payment as three man survey crew time.)

The Engineer will issue a DOT 75 ticket for the hours authorized for Survey Crew, Three Man.

5. **Graded Centerline Staking:** Graded centerline staking will not be measured. Payment will be based on the plan quantity.

**E. BASIS OF PAYMENT**

1. **Slope Staking:** Slope staking will be paid at the contract unit price per mile.
2. **Grade Staking:** Grade staking will be paid at the contract unit price per mile.
3. **Miscellaneous Staking:** Miscellaneous staking will be paid at the contract unit price per mile.  
Miscellaneous staking will be the plan quantity paid at the contract unit price. Payment will be full compensation for the work including furnishing all necessary personnel, equipment, supplies, materials, filing fees, transportation, and all incidentals to accurately complete the work. Partial payment will be made as follows:
  - a. Upon submission of the name, experience, and qualifications of the surveyor or engineer who will supervise the staking, the proposed starting date, and the staking schedule, the Contractor will be paid 25 percent of the plan quantity for the miscellaneous staking.
  - b. Intermediate payments will be made and based on the amount of the staking work properly completed.
  - c. Full payment at the plan quantity for miscellaneous staking will be made upon completion of all surveying and staking and when all field note books and records have been furnished to the Engineer.
  - d. No adjustment will be made to the contract unit price for miscellaneous staking or to the plan quantity due to overruns or underruns in the other contract items.
4. **Three Man Survey Crew:** Three Man Survey Crew will be paid for on an hourly basis as per the Price Schedule for Miscellaneous Items. The value listed in the Price Schedule for Miscellaneous Items shall include salaries, travel time, equipment, staking supplies, payroll additive, and all incidental expenses related to providing the survey crew.
5. **Graded Centerline Staking:** Graded centerline staking will be paid at the contract unit price per mile.

Payment for all of the survey items shall be considered full compensation for furnishing all necessary personnel, vehicles, surveying equipment, supplies, staking materials, recording fees, transportation, and incidentals to accurately and satisfactorily complete the work.

The Department of Transportation reserves the right to omit any of these bid items without providing compensation to the contractor if bid prices are deemed unreasonable by the Department.

\* \* \* \* \*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
ELECTRONIC BIDDING REQUIREMENTS**

**AUGUST 9, 2011**

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The South Dakota Department of Transportation requires that all bid proposals submitted for this project be prepared and submitted using the latest version of the South Dakota Electronic Bidding System (SDEBS).

The Contractor may obtain the latest version of the SDEBS software from the SDDOT Website. Refer to <http://www.sddot.com/pe/projdev/bidlet.asp> for the latest version of the SDEBS software.

**MAKE THE INDICATED CHANGES TO THE FOLLOWING SPECIFIED SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES:**

**Delete Section 2.1 and replace with the following:**

**2.1**

- A. PREQUALIFICATION OF BIDDERS** - Prequalification on construction projects exceeding \$100,000 is required.

Prospective bidders may apply for prequalification by completing and executing a Contractor's prequalification statement on forms approved by the Department. Such application shall be received by the Department at least fourteen days prior to the letting date to be eligible for bidding.

The Prequalification shall be in force for 18 months from the date of the Contractor's balance sheet. Prequalification may be changed during that period upon the submission of additional favorable reports or upon evidence of unsatisfactory performance. Prequalification may authorize a Contractor to bid on individual projects of a given size or for a particular type of work.

- B. ELECTRONIC IDENTIFICATION** - Prospective bidders shall contact the Department to obtain a company identification and password. Bidding documents will only be available for download with proper company identification and password. Each company will receive one company identification and password.

In addition to the company identification, prospective bidders will be required to obtain a bidder identification and password for each individual who is granted authorization to submit a bid proposal on behalf of the company. The company must obtain a Bidding Authorization Form (available on the Department's website). The form shall be completed with all required information along with the appropriate notarized signatures and shall be submitted to the Department as noted on the form to obtain the bidder identification(s) and password(s). The company must provide the Bidding Authorization Form to the Department no later than 48 hours prior to the bid opening.

The bidder identification and password shall be for an authorized agent of the bidder having legal authority to do business for the bidder.

**Delete Section 2.2 and replace with the following:**

**2.2 CONTENTS OF BIDDING PACKAGE** - The bidding package will consist of the proposal booklet, plans, specifications, special provisions, supplemental specifications, addenda, or requirements which vary from or are not contained in the standard specifications, and electronic bid files. The bidding package will state the location and description of the contemplated construction, show the estimate of the various quantities and type of work to be performed or materials to be furnished, and will have a schedule of items for which unit bid prices are invited. The bidding package will state the time in which the contract work must be completed, the date, time and place of the receiving of the required bid proposals, and prequalification requirements.

Prospective bidders shall refer to the SDDOT Website to acquire the bidding package. The prospective bidder shall be responsible for all costs associated with utilizing the SDEBS and electronic bonds through the bond management company.

**Delete Section 2.3 and replace with the following:**

**2.3 ISSUANCE OF BIDDING PACKAGE** - The Department will not place restrictions on who may download the bidding package from the website except that certain documents will require a company identification as described in Section 2.1 B. It is the bidder's responsibility to verify the bidder's prequalification status prior to bidding. Bidder status will be verified by the Department in accordance with Section 3.1 prior to opening bids.

**Delete Section 2.6 and replace with the following:**

**2.6 PREPARATION OF PROPOSAL** - The bidder shall submit the proposal using the SDEBS.



The bidder shall specify a unit price, in numerals, for each bid item for which a quantity is given. A unit price can not be "\$0.00."

When the bidding package contains an alternate bid item or group(s) of alternate bid items, the bidder shall indicate a choice for each available group by entering unit prices for all bid items within the alternate chosen.

The bidder must complete all required fields in the SDEBS. If the bidder does not completely fill out all required fields the bid proposal may be considered irregular and the bid proposal may be rejected in accordance with Section 2.7.

For bidding purposes, in case of a discrepancy between the line number, bid item description, or quantity shown in the SDEBS and the corresponding item shown in the plans, the bid item description and the quantity shown in the SDEBS will govern.

**2.7 IRREGULAR BID PROPOSALS** - Bid proposals will be considered irregular and shall be rejected for any of the following reasons:

- A.** The bid proposal is incomplete, or is submitted on a form other than the Department's latest version of the SDEBS.
- B.** The bid proposal contains unauthorized additions, conditional or alternate bids, or other irregularities, which may tend to make the bid proposal incomplete, indefinite, or ambiguous as to its meaning.
- C.** The bid proposal contains provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award. This is not intended to exclude a bid proposal limiting the maximum gross amount of awards acceptable to a bidder at one bid letting. Selection of awards will be made by the Department.
- D.** The bid proposal does not contain a unit price in numerals for each pay item listed, except in the case of authorized alternate pay items.
- E.** The bid proposal is signed with an invalid bidder identification.
- F.** The Department determines, in its sole discretion, that any of the unit bid prices are significantly unbalanced to the potential detriment of the Department.
- G.** Confirmation of receipt of all addenda issued by the Department is not included in the bid proposal.

**Delete Section 2.8 and replace with the following:**

**2.8 PROPOSAL GUARANTY** - The Department will not consider any bid proposal unless the bidder has secured a guaranty in the amount of five percent of the total amount of the bid and the Department receives that guaranty prior to opening of the bids. Satisfactory proposal guaranties include certified checks, cashier's checks, bank drafts issued upon a national or state bank, or a bid bond issued in accordance with South Dakota law. If the bidder uses an electronic bid bonds, the bidder must submit the bid bond identification number with the bid proposal. Unless otherwise specified in the bidding package, the proposal guaranty must be made payable at sight to the South Dakota Department of Transportation.

**Delete Section 2.9 and replace with the following:**

**2.9 SUBMISSION OF BID PROPOSALS** - Bid proposals must be submitted electronically using the SDEBS to the Department's secure bid submission site prior to the time and date specified by the Notice to Contractors in the bidding package. Proposals received after the time for opening of bids will not be accepted.

**Delete Section 2.10 and replace with the following:**

**2.10 WITHDRAWAL OR REVISION OF PROPOSALS** - A bidder may withdraw a proposal after it has been submitted, provided the withdrawal is made before the time set for opening the proposals.

A bid may be revised and resubmitted any time prior to the time set for opening the proposals. The Department will consider only the last bid proposal submitted as a valid bid proposal for that project. Revisions to the bids may only be made through the SDEBS.

**Delete Section 3.1 and replace with the following:**

**3.1 CONSIDERATION OF BID PROPOSALS** - After the bids are received, but prior to opening, the Department will verify the bidder is prequalified for the specified work type. After the bids are opened, the Department will verify that the bidder's status at that time is sufficient to handle the work for which the bidder submitted a bid. The Department reserves the right to refuse to accept a bid proposal for any of the following reasons:

**A.** Lack of competency or adequate machinery, plant and other equipment, as shown by the Contractor's Prequalification Statement.

- B.** Uncompleted work which the Department determines, in its sole discretion, may hinder or prevent the prompt completion of additional work.
- C.** Failure to pay, or satisfactorily settle, legal obligations due for labor or material on any contract at the time of issuance of proposals.
- D.** Failure to comply with the Department's prequalification regulations.
- E.** Default under previous contracts.
- F.** Debarment by the Department or the federal government.
- G.** Lack of bidding capacity as established by the Contractor's prequalification statement, considering the uncompleted work currently under contract.
- H.** Unsatisfactory performance on previous work or current contract(s) consisting of, but not limited to:
  - 1.** Noncompliance with contract specifications, contract requirements or Engineer's directives.
  - 2.** Failure to complete work on time.
  - 3.** Instances of substantial corrective work prior to acceptance.
  - 4.** Instances of completed work that requires acceptance at reduced pay.
  - 5.** Production of nonspecification work or materials, and when applicable, requiring price reductions or corrective work.
  - 6.** Failure to provide adequate safety measures and appropriate traffic control that endangers the safety of the work force and public.
  - 7.** Questionable moral integrity as determined by the Attorney General of the State or the Department.
  - 8.** Failure to reimburse the State for monies owed on any previously awarded contract including any contract where the prospective bidder is a party to a joint venture and the joint venture has failed to reimburse the State for monies owed.

After the bid proposals are opened, they will be compared on the basis of the summation of the products of the quantities shown in the bid proposal by the unit bid prices. The results of such comparisons will be available to the public via the Department's Internet Website.

The Department reserves the right to reject any or all bid proposals, to waive technicalities or to advertise for new bid proposals, if in the judgment of the Commission, the best interest of the Department will be promoted thereby.

**Delete Section 3.4 and replace with the following:**

**3.4 PROPOSAL GUARANTY** - The Department will retain the proposal guaranties of the two lowest responsible and competent bidders. The Department will release the remaining proposal guaranties following opening and checking of bid proposals. The Department will release the proposal guaranties of the two low bidders when the contract has been executed.

**Delete Section 570**

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**STATE OF SOUTH DAKOTA**  
**DEPARTMENT OF TRANSPORTATION**  
**SPECIAL PROVISION**  
**FOR**  
**FUEL COST ADJUSTMENT**  
**JULY 13, 2006**

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**Delete Section 9.12 of the Standard Specifications for Roads and Bridges and replace with the following:**

**General**

Compensation adjustments for motor fuels and burner fuels consumed in prosecuting the contract shall be determined by the Engineer in accordance with the provisions set forth herein.

Compensation adjustments will be assessed for the cost of the motor fuels and burner fuels whenever the Current Fuel Index (CFI) is outside the range of 85 percent to 115 percent of the Base Fuel Index (BFI). Compensation adjustments for burner fuel will only be made when asphalt concrete bid items are paid for on the estimate.

The Contractor is not required to notify the Department at the time of submitting bids whether he will or will not participate in the fuel cost adjustment program. Prior to execution of the contract, the successful bidder shall submit the Fuel Adjustment Affidavit - Form DOT-208 to the Department.

Determination of whether to participate in the Fuel Adjustment program is the decision of the Prime Contractor. If the Prime Contractor decides not to participate, or if he has a fixed fuel cost for any of the fuel types, no compensation adjustments will be made for the subcontractors by the Department. The Fuel Adjustment Affidavit shall include the anticipated fuel cost of subcontractors, if the Prime Contractor chooses to participate in the fuel cost adjustment program. If compensation adjustments are made, the prime contractor shall ensure that all subcontractors including second and lower tier, are included in the adjustments in proportion to the percentage of work and anticipated fuel cost by that subcontractor.

Each week the Department will record the average wholesale price for No. 2 fuel oil (diesel), regular unleaded gasoline, and propane (LPG), Freight On Board (FOB) South Dakota terminals, as listed in the "Oil Price Information Service" (OPIS) publication.

The BFI price for motor fuels and burner fuel to be used in the contract will be the average of the recorded wholesale fuel prices for the four most recent weekly reporting periods prior to the week of the bid letting.

The CFI price for motor fuels and burner fuel to be used for each progress payment will be the average for the recorded wholesale fuel prices for the four most recent weekly reporting periods available at the time when the progress payment is prepared.

Burner fuel adjustment will use the BFI and CFI as determined for No. 2 fuel oil (diesel), except when the contractor lists the burner fuel as propane (LPG) on Form DOT-208, Fuel Adjustment Affidavit. In that case, the BFI and CFI will be as determined for propane (LPG).

Compensation adjustments will not be assessed for fuel items which the contractor has obtained a fixed fuel cost, or if the contractor elects not to participate in fuel adjustments on Form DOT-208, Fuel Adjustment Affidavit. Fixed fuel costs are defined as a fuel cost that has been set and will remain the same for the entire length of the contract.

Compensation adjustments made in accordance with these provisions may be made on progress payments without a prior approved Construction Change Order.

**Fuel Cost Percentage Change**

The biweekly change in fuel cost percentage will be determined by Equation 1 as follows:

Equation 1

$$Change_{(x, y, z)} = \left( \frac{CFI_{(x, y, z)} - BFI_{(x, y, z)}}{BFI_{(x, y, z)}} \right)$$

- (x) = Motor Fuel (Diesel)
- (y) = Motor Fuel (Unleaded)
- (z) = Burner Fuel

Change<sub>(x, y, z)</sub> = Percent change in the respective fuel price compared to the Base Fuel Index Price set for the contract.

CFI<sub>(x, y, z)</sub> = Current Fuel Index Price for the respective fuel type (\$\$).

BFI<sub>(x, y, z)</sub> = Base Fuel Index Price for the respective fuel type (\$\$).

**Contract Fuel Percentage**

For the purpose of determining fuel cost adjustment, a percent of contract will be determined for Motor Fuel (Diesel), and Motor Fuel (Unleaded) based on the original

contract prices. Burner Fuel will be adjusted based on the original contract prices of the plant mix asphalt concrete pavement bid items.

The percent of the contract will remain the same throughout the length of the contract. No changes to this percentage will be allowed for any reason. The sum of the individual fuel costs shall not exceed 15% of the Original Contract Cost. The percent of the contract will be determined by Equation 2 as follows:

Equation 2

$$\% \text{ Contract}_{(x, y, z)} = \left( \frac{\text{Affidavit Cost}_{(x, y, z)}}{\text{Original Contract Cost}_{(x, y, z)}} \right) \times 100$$

- (x) = Motor Fuel (Diesel)
- (y) = Motor Fuel (Unleaded)
- (z) = Burner Fuel
  
- % Contract<sub>(x,y,z)</sub> = Percent of contract for each respective fuel item.
  
- Affidavit Cost<sub>(x,y,z)</sub> = Cost from Fuel Adjustment Affidavit (Form DOT-208)
  
- Original Contract Cost<sub>(x,y)</sub> = Total of the original contract bid cost excluding lane rental, and Part B of the bid (when A+B bidding is used), if applicable (\$\$).
  
- Original Contract Cost<sub>(z)</sub> = Total original contract cost for all plant mix asphalt concrete pavement bid items combined, excluding bid items for asphalt binder, hydrated lime, sawing and sealing joints, compaction samples, etc. Only bid items measured by the Ton will be included in the calculation.

**Compensation Adjustment**

The compensation adjustments will be determined for Motor Fuel (diesel), Motor Fuel (Unleaded), and Burner Fuel separately. The calculation will be based on the current Engineer’s pay estimate, the percent of the contract for each of the respective fuel items, and the portion of the Current Fuel Index price that falls outside the 85 to 115 percent range of the Base Fuel Index price.

When the “Change<sub>(x, y, z)</sub>” from Equation 1 is greater than 15%, Equation 3 will be used to determine the compensation adjustment for each item as follows:

### Equation 3

$$FCA_{(x,y,z)} = \frac{\% \text{ Contract}_{(x,y,z)}}{100} \times \text{Estimate Cost}_{(x,y,z)} \times (\text{Change}_{(x,y,z)} - 0.15)$$

(x)	=	Motor Fuel (Diesel)
(y)	=	Motor Fuel (Unleaded)
(z)	=	Burner Fuel
$FCA_{(x,y,z)}$	=	Fuel Cost Adjustment for the respective fuel item for the current Engineer's estimate (\$\$).
$\% \text{ Contract}_{(x,y,z)}$	=	Percent of contract for each respective fuel item (from Equation 2).
$\text{Estimate Cost}_{(x,y)}$	=	Amount to be paid on the biweekly pay estimate excluding all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties.
$\text{Estimate Cost}_{(z)}$	=	Amount to be paid on the biweekly pay estimate for all plant mix asphalt concrete pavement bid items combined, excluding bid items for asphalt binder, hydrated lime, sawing and sealing joints, compaction samples, all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties. Only asphalt concrete bid items measured by the Ton will be included in the calculation.
$\text{Change}_{(x,y,z)}$	=	Change in the respective fuel price compared to the Base Fuel Index price (from Equation 1).

When the “Change<sub>(x,y,z)</sub>” from Equation 1 is less than -15%, the Equation 4 will be used to determine the compensation adjustment for each item.

### Equation 4

$$FCA_{(x,y,z)} = \frac{\% \text{ Contract}_{(x,y,z)}}{100} \times \text{Estimate Cost}_{(x,y,z)} \times (\text{Change}_{(x,y,z)} + 0.15)$$

(x)	=	Motor Fuel (Diesel)
(y)	=	Motor Fuel (Unleaded)
(z)	=	Burner Fuel



$FCA_{(x,y,z)}$	=	Fuel Cost Adjustment for the respective fuel item for the current Engineer's estimate (\$\$).
% Contract $_{(x,y,z)}$	=	Percent of contract for each respective fuel item (from Equation 2).
Estimate Cost $_{(x,y)}$	=	Amount to be paid on the biweekly pay estimate excluding all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages, and royalties.
Estimate Cost $_{(z)}$	=	Amount to be paid on the biweekly pay estimate for all plant mix asphalt concrete pavement bid items combined, excluding bid items for asphalt binder, hydrated lime, sawing and sealing joints, compaction samples, all pay adjustments made for incentive, disincentive, price adjustments, pay factor adjustments, liquidated damages and royalties. Only asphalt concrete bid items measured by the Ton will be included in the calculation.
Change $_{(x,y,z)}$	=	Change in the respective fuel price compared to the Base Fuel Index price (from Equation1).

### **Payment**

Adjustments will be determined by the Engineer on biweekly progress payments based on when the completed work is paid for, not when the work is completed. Adjustments will be made by utilizing the following lump sum line items: Motor Fuel Cost Adjustment, Diesel; Motor Fuel Cost Adjustment, Unleaded; Burner Fuel Cost Adjustment, Propane; and Burner Fuel Cost Adjustment, Diesel.

\* \* \* \* \*

For informational purposes, Form DOT-208 follows in Attachment A.

Attachment A

DOT-208  
(05/07)

FUEL ADJUSTMENT AFFIDAVIT

Project Number \_\_\_\_\_  
PCN \_\_\_\_\_  
County \_\_\_\_\_

*The Contractor is not required to notify the Department at the time of submitting bids whether he will or will not participate in the fuel cost adjustment program. The Fuel Adjustment Affidavit shall include the anticipated fuel cost of subcontractors.*

Does your company elect to participate in a fuel adjustment for this contract for the fuels that do not have a fixed price? No adjustments in fuel prices will be made if "No" is checked.

Yes  No

If yes, provide the total dollars for each of the applicable fuels. No adjustments in fuel price will be made for the fuel types that are left blank or completed with a \$0.00 value.

Diesel (x) \$ \_\_\_\_\_

Unleaded (y) \$ \_\_\_\_\_

Burner Fuel (z) \$ \_\_\_\_\_ Type of Burner Fuel Used: \_\_\_\_\_

Sum (x + y + z) = \$ \_\_\_\_\_

**Note:** The sum of the x, y, and z may not exceed 15% of the original contract amount.

**The following must be completed regardless of whether the Contractor elects to participate in the fuel adjustment affidavit**

Under the penalty of law for perjury or falsification, the undersigned, \_\_\_\_\_,  
*(Printed Name)*

\_\_\_\_\_ of \_\_\_\_\_,  
*(Title) (Contractor)*

hereby certifies that the documentation is submitted in good faith, that the information provided is accurate and complete to the best of their knowledge and belief, and that the monetary amount identified accurately reflects the cost for fuel, and that they are duly authorized to certify the above documentation on behalf of the company.

I hereby agree that the Department or its authorized representative shall have the right to examine and copy all Contractor records, documents, work sheets, bid sheets, and other data pertinent to the justification of the fuel costs shown above.

Dated \_\_\_\_\_ Signature \_\_\_\_\_

**Notarization is required only when the Contractor elects to participate in the fuel adjustment affidavit**

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
*Notary Public*

\_\_\_\_\_  
*My Commission Expires*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
SUSPENSION OF WORK**

**FEBRUARY 13, 2004**

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The following shall apply when suspension of the work is ordered by the Engineer.

If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/ or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

Upon receipt, the Engineer will evaluate the contractor's request in accordance with Section 5.17 and/or Section 8.6 of the Standard Specifications. If the Engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The Contractor will be notified of the Engineer's determination whether or not an adjustment of the contract is warranted.

No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

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**STATE OF SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION  
TITLE VI AND NONDISCRIMINATION ASSURANCE  
JULY 14, 2008**

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- (1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended (hereinafter referred to as the "Regulations"), incorporated by reference and made a part of this contract.
- (2) Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, religion, national origin, sex, age or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- (3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, religion, national original, sex, age or disability.
- (4) Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the South Dakota Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the South Dakota Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain this information.
- (5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the South Dakota Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including but not limited to:
  - (a) withholding of payments to the contractor under the contract until the contractor complies, and/or
  - (b) cancellation, termination or suspension of the contract, in whole or in part.
- (6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives pursuant thereto.

The contractor shall take such action with respect to any subcontract or procurement as the South Dakota Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance. Provided, however, that, in the event of a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the South Dakota Department of Transportation to enter into such litigation to protect the interest of the State, and, in addition, the contractor may request the United States to enter such litigation to protect the interests of the United States.

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**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
DISADVANTAGED BUSINESS ENTERPRISE**

**DECEMBER 21, 2011**

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The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Implementation of the DBE program is a legal obligation and a bidder's/Contractor's failure to carry out the terms of the DBE program will be treated as a non-responsive bid or as a violation of the construction contract.

**I. Definitions**

- A. Specified Goal:** A DBE participation goal for a contract as indicated by a specific numerical percentage of the total dollar amount of the contract in the bidding documents.
- B. Not Specified:** No specific DBE participation percentage is required to be obtained by the bidder.
- C. Disadvantaged Business Enterprise (DBE):** A for-profit small business that is certified by the Department and is listed in the DBE Directory available on the Department's web site.
- D. Good Faith Effort (GFE):** Efforts to achieve a DBE goal which; by their scope, intensity, and appropriateness to the objective; can reasonably be expected to meet the objective of the Department's DBE program pursuant to 49 CFR 26.1.
- E. Positive Contact:** Communication between the bidder and the DBE in which the bidder receives an oral or written response from the DBE stating the DBE's intention to quote or not quote a project.
- F. Commitment:** The dollar amount of work to be subcontracted to DBEs, according to the bidder's bid. The commitment may be compared to the dollar

amount of all contract items in the bidder's bid and expressed as a percentage of the total bid amount.

## **II. Bidding Requirements**

A bidder must not discriminate on the basis of race, color, national origin, or sex in the solicitation or award to subcontractors and material suppliers. Bidders who demonstrate a pattern of possible discrimination through consistent and repeated under-utilization of DBEs may be subject to investigation and sanctions allowed by regulation, administrative rule, or law.

On contracts that specify a specific DBE contract participation goal, all bidders must include their DBE commitment for the contract in the bidding files provided by the Department.

If the contract indicates "Not Specified," all bidders are encouraged to include their anticipated DBE utilization for the contract in the bidding files provided by the Department.

Each bidder must submit a list of all subcontractors and suppliers (DBEs and non-DBEs) the bidder received quotes from for that contract with the bid files.

A Contractor must make reasonable efforts to provide opportunities for DBEs to participate on Federal-aid contracts throughout the life of the contract.

On contracts let with a specified DBE contract participation goal, where the low bidder has not met or exceeded that goal, the bidder must provide GFE documentation as indicated in Section III.

When the DBE participation is "Not Specified" on a contract, each bidder is encouraged to use DBE Contractors; however no bidder will be required to furnish GFE documentation.

The apparent low bidder must submit GFE documentation, when requested by the Department, within two (2) business days from the date the apparent low bidder is contacted by the Department. Section III provides information on the types of action bidders should make as part of their GFE to obtain DBE participation. The apparent low bidder may submit documentation with the bidding files provided all pertinent information is included. The apparent low bidder must submit any missing documentation within two (2) business days from the date the Department contacts the low bidder.

If the apparent low bidder does not provide documentation showing GFE as required by this special provision, the Department will consider that bid nonresponsive and may either award the contract to the next lowest responsible bidder with a responsive bid, or reject all bids. Subsequent to the DBE



committee's decision that the apparent low bidder's efforts do not establish GFE, the apparent low bidder will be notified that the bid is not responsive. The apparent low bidder will have two (2) business days from the date of notification to contact the Bid Letting Engineer to arrange a meeting with the Department Secretary, or the Secretary's designee, to present documentation and argument about why the bid should not be rejected. The Department Secretary or the Secretary's designee will issue a written decision on responsiveness of the bid within two (2) business days after the meeting.

If the apparent low bid is rejected for failure to meet the GFE or other requirements, the next apparent low bidder will be notified, unless all bids are rejected. The next apparent low bidder's DBE commitment will also be reviewed, and GFE documentation may be requested. Unless all bids are rejected, award of the contract will be made to the lowest bidder with a responsive bid.

The lowest responsive bidder will be required to complete Form 289B, as included in the contract documents, when the contract is sent for signature. This form requires a signature from each DBE identified in the low bidder's DBE commitment. A separate form will be supplied for each DBE and will be included in the contract documents.

Bidders are encouraged to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, materials, or other related services.

### **III. Good Faith Efforts**

If a GFE package is requested on a contract with a specified goal, the apparent low bidder must submit documentation showing compliance with the following requirements:

- A.** The apparent low bidder will submit a contact log of all solicitation efforts including:
- Name of the DBE firm
  - Name and phone number of the individual with whom contact was made
  - Date, time, and manner of each and every contact (by phone, in person, fax, mail, e-mail, etc.)
  - The DBE's response to the solicitation
  - Result of the solicitation effort

An example of a solicitation log is available on the Department's Bid Letting website. When bidding utilizing the South Dakota Electronic Bidding System (SDEBS) software, the software may be used to document the log of solicitation efforts for the project.

- B.** The apparent low bidder will also submit documentation that shows GFE in relation to the following requirements:
1. The bidder must select contract work items to encourage DBE participation. This includes breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder might otherwise prefer to perform these work items with its own forces.
  2. The bidder must solicit all certified DBEs in the appropriate work classifications in the DBE directory which have indicated they are willing to work in the project's geographic area. If the bidder has not solicited any DBE meeting these requirements, the bidder will provide a detailed written explanation showing why the DBE was not solicited. To provide adequate time for the DBE to respond with a quote in the normal course of business, the bidder must make the initial solicitation at least six (6) calendar days by mail or five (5) calendar days by phone, fax, or e-mail prior to the letting date. Without exception, all DBEs who are listed on the plan holders list seven (7) days prior to the bid letting must be solicited.
  3. If the bidder does not receive a positive contact from a DBE, the bidder must follow up the initial solicitation with a second solicitation by phone, fax, or e-mail to determine whether the DBE is interested in quoting. The bidder must make this second solicitation at least two (2) business days prior to the letting.
  4. The bidder will provide interested DBEs with adequate and timely information about plans, specifications, and requirements of the contract to assist DBEs in responding to a solicitation.
  5. If a bidder rejects a DBE quote because of previous problems with a particular DBE, the bidder must prepare a detailed written explanation of the problem. Additional cost involved in finding and using DBEs is not, in itself, sufficient reason for a bidder to reject a quote. A bidder must not reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities.
  6. Any additional information requested by the Department.
- C.** The bidder must consider qualified DBEs whose quotes are reasonably competitive. If the bidder rejects any quote because it is considered not to be "reasonably competitive," the bidder must provide copies of all DBE and non-DBE quotes, and a work item price spreadsheet comparing DBE quotes to non-DBE quotes. The spreadsheet must show which quote was included in the bid for the work items being compared. The ability or desire of a bidder to

perform the work with its own forces does not relieve the bidder of the responsibility to make GFE. In the event a bidder elects to use its own forces over a DBE, the bidder must include, on the spreadsheet, documentation of the costs of using the bidder's own forces. This can be shown in a number of ways, which may include submitting portions of the bidder's work sheets used to prepare the bid.

- D. The bidder must explain why the specified goal could not be met.
- E. The bidder must identify any additional efforts the bidder made to secure DBE participation.

#### **IV. Counting DBE Participation**

On projects with a specified goal, the contract commitment, as submitted with the bid, will be documented on Form 289R/C as included in the contract documents.

If the project is shown as "Not Specified," the anticipated DBE utilization, as submitted with the bid, will be documented on Form 289 R/N – DBE Utilization Form, as included in the contract documents. The DBE utilization shown on this form is not a commitment to use the DBE. This information will be used by the Department to track anticipated DBE usage.

Only the portion of a contract performed by the DBE's own forces will count toward DBE participation. Included is the cost of supplies and materials obtained by the DBE for the contract, including supplies purchased or equipment leased by the DBE. Supplies and equipment the DBE subcontractor purchased or leased from the Contractor or its affiliate is not allowed to be included.

When a DBE performs as a participant in an approved joint venture, only the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces will count toward DBE participation.

A bidder may count toward its DBE participation only that percentage of expenditures to DBEs that perform a commercially useful function (CUF) in the performance of a contract. A DBE performs a CUF when the DBE is responsible for execution of the work of a contract and is carrying out the DBE's responsibilities by actually performing, managing and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating prices, determining quality and quantity, ordering and installing (where applicable) the materials, and paying for the material itself. To determine whether a DBE is performing a CUF, the Department will evaluate the amount of work subcontracted, the industry practice, and whether the amount the DBE is to be paid is commensurate with

the work it is actually performing, DBE credit claimed for performance of the work, and other relevant factors.

A DBE is not performing a CUF if the DBE performs less than 30% of the total cost of its contract with its own work force, or if its role is limited to that of an extra participant in a transaction, project, or contract through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is simply an extra participant, the Department will examine similar transactions, particularly those in which DBEs do not participate.

DBE participation will be counted for trucking services as follows:

The bidder/Contractor will receive credit toward DBE participation for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, insures, and operates and which are driven by drivers the DBE employs.

A DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. When a DBE leases trucks from another DBE, the bidder/Contractor can count the total value of the transportation services the lessee DBE provides on the contract toward DBE participation.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. When a DBE leases trucks from a non-DBE, the bidder/Contractor can count toward DBE participation only the fee or commission the DBE receives as a result of the lease arrangement. The bidder/Contractor does not receive credit toward DBE participation for the total value of the transportation services, since all services are not provided by a DBE.

The bidder may count toward DBE participation expenditures to DBE firms for materials, supplies, or services as follows:

If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE participation. A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE participation. A regular dealer is a firm that owns, operates, or maintains a store, warehouse or other establishment in which the materials, supplies, articles, or equipment are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

If the materials or supplies are purchased from a DBE which is neither a manufacturer nor a regular dealer, count only the amount of fee or commission charged for assistance in the procurement of the materials or supplies or fee or transportation charges for the delivery of materials or supplies required at the job site toward DBE participation. In order to be counted, the Department must determine the fee to be reasonable and not excessive as compared to fees customarily allowed for similar services. The cost of the materials and supplies themselves will not count toward DBE goals.

The Department will not count toward DBE participation materials or services provided by a DBE who is not currently certified.

No intended or actual subcontracting arrangement which is contrived to artificially inflate DBE participation is allowed. This includes, but is not limited to, DBE middlemen which serve no commercially useful function, or arrangements where a DBE is acting essentially as a broker of goods or services, but has been counted as a manufacturer, regular dealer, or subcontractor.

The Department will review and monitor projects for compliance with the bidder's intended DBE participation. Failure by the Contractor to fulfill the contract commitment constitutes a breach of contract. The Department may also investigate the form and substance of particular business arrangements between and among DBE and Contractors with regard to specific contracts. If, as a result of an investigation, the Department determines a particular business arrangement is not allowable, the dollar amount of the unallowable DBE participation will be subtracted from the Contractor's DBE participation on that project. The Contractor will be notified if the apparent DBE participation is not adequate to meet the DBE participation stated on the 289R/C Form. The Contractor will be directed to seek additional participation from other DBEs to meet the unallowable portion on that contract.

If the Department determines a Contractor was a knowing and willing participant in an unallowable business arrangement, or in the event of repeated violations, falsification, or misrepresentation, the Department will impose sanctions. Sanctions may include, but are not limited to one or more of the following:

- Assessment of liquidated damages as stated in Section VII below
- Suspension of bidding privileges or debarment
- Withholding progress payments
- Securing additional DBE participation on future Federal-aid contracts sufficient to make up for the DBE participation found to be unallowable
- Referral of the matter for criminal prosecution

## **V. Joint Checks to DBEs**

A joint check is a check issued by a prime Contractor to a DBE subcontractor and to a material supplier or another third party for items or services to be incorporated into a project. For a prime Contractor to receive DBE credit, the DBE must perform a commercially useful function and be responsible for negotiating price, determining quality and quantity, ordering materials and installing (where applicable) and paying for materials.

To ensure that the DBE is independent of the prime Contractor and in compliance with the regulation, use of joint checks will be reviewed and allowed only under following conditions:

- Issued for valid reasons only, not simply for the convenience of the prime Contractor
- Used for a specific contract or specific time frame and not long-term or open ended
- Payment is made to the DBE and not directly to the supplier
- Requested and received prior written approval from the DBE Compliance Officer.

The request must include the following:

- Name of the DBE
- The DOT contract number(s)
- The DOT PCN number(s)
- The work the DBE will be performing on each contract
- Name of the supplier(s) used by the DBE
- The specific reason(s) for issuing joint checks

The Department will review the request and verify the circumstances indicated in the request with the DBE. A copy of the request and approval will be provided to the prime Contractor and the DBE.

## **VI. Certification of DBE Performance and Payments**

Within 30 days of physical completion of the project the Contractor is required to submit Form DOT 289 (Certification of DBE Performance and Payments), listing all DBEs that participated in the contract, and the total dollar amount paid (and anticipated to be paid) to each. DBE attainments are compared to commitments on Form 289R/C and any payments less than 90 percent of that commitment, without proper justification and documentation, will have liquidated damages assessed against the contract. The Contractor's final payment is not released until receipt of the Form DOT 289.

Contractors are required to maintain a running tally of payments to DBEs. For reports of payments not being made in accordance with the prompt payment provision, alleged discrimination against a DBE or other similar complaint, the tally may be requested for review by the Department. The Department may perform audits of contract payments to DBEs to ensure that the amounts paid were as reported on the Form DOT 289. All Contractors participating in Federal-aid contracts are expected cooperate fully and promptly with the Department in compliance reviews, investigations and other requests for information regarding payments to DBEs. Their failure to do so is grounds for appropriate sanctions or action against the Contractor.

The DOT will monitor the running tally on a program basis and if reporting issues are identified, additional reporting requirements may be implemented.

## **VII. Liquidated Damages**

**A.** If the Contractor does not meet its contract commitment documented on Form 289 R/C, the Department will assess liquidated damages according to the following schedule:

1. For the first \$1,000 DBE deficiency, one hundred percent (100%) of the deficiency.
2. For the next \$9,000 DBE deficiency, fifty percent (50%) of the deficiency.
3. For the next \$10,000 DBE deficiency, twenty five percent (25%) of the deficiency.
4. For any remaining DBE deficiency in excess of \$20,000, ten percent (10%) of the deficiency.

This liquidated damage provision will not be applicable where actual payment to a DBE is within ninety percent (90%) of the commitment or where there are good and sufficient reasons, properly documented, for the deficiency such as quantity under-runs, project changes, or other unexpected occurrences.

**B.** If a Contractor finds it impossible, for reasons beyond its control, to meet the contract commitment on Form 289R/C, the Contractor may, at any time prior to completion of the project, provide a written request to the DBE Compliance Officer for a complete or partial waiver of liquidated damages. No request for a waiver will be accepted after Acceptance of Field Work has been made.

## **VIII. Contractor Utilization of Subcontractors and Suppliers**

Except as otherwise provided in this provision, each DBE firm listed on Form 289R/C will perform the work specified (or provide materials or services as indicated), and at the dollar levels specified.

Substitution of DBEs reported on Form 289R/C is not allowed, except for performance or scheduling problems on the part of the DBE, or if the DBE has requested to be removed from that particular contract. Substitution will not take place without written approval by the DBE Compliance Officer.

The Contractor must provide timely notification to the DBE Compliance Officer of the reason(s) for the substitution. Prior to approval by the DBE Compliance Officer, the Contractor must also provide documentation showing reasonable efforts to replace the designated DBE with another DBE.

In instances where time is critical to project progress, this process may be handled verbally, with written confirmation to follow.

If the Contractor does not utilize and pay DBEs as required, liquidated damages will be assessed as specified in Section VII. In addition, if the Contractor is found to have knowingly and willingly attempted to circumvent the DBE contract provisions, sanctions referred to in Section IV will be imposed.

All Contractors and DBEs participating in Federal-aid contracts are expected to cooperate fully and promptly with the Department in compliance reviews, investigations, and other requests for information. Failure to do so will be grounds for appropriate sanctions or action against the party as indicated in Section IV. The DBE Compliance Officer will enforce compliance with contract requirements regarding the use of DBE subcontractors and suppliers. The DBE Compliance Officer, or said officer's designee, may conduct compliance reviews on selected projects each year to verify compliance by Contractors. Violations will be handled in accordance with contract provisions and statutory or regulatory requirements.

\* \* \* \* \*



**SPECIAL PROVISION FOR  
EEO AFFIRMATIVE ACTION REQUIREMENTS ON  
FEDERAL AND FEDERAL-AID CONSTRUCTION CONTRACTS**

**SEPTEMBER 1, 1997**

APPENDIX A

Notice or Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE

Aurora	0.8%	Fall River	7.9%	Marshall	1.3%
Beadle	0.8%	Faulk	1.3%	Meade	3.4%
Bennett	7.9%	Grant	1.3%	Mellette	7.9%
Bon Homme	1.2%	Gregory	0.8%	Miner	0.8%
Brookings	0.8%	Haakon	7.9%	Minnehaha	1.2%
Brown	1.3%	Hamlin	1.3%	Moody	0.8%
Brule	0.8%	Hand	0.8%	Pennington	3.4%
Buffalo	7.9%	Hanson	0.8%	Perkins	7.9%
Butte	7.9%	Harding	7.9%	Potter	7.9%
Campbell	7.9%	Hughes	7.9%	Roberts	1.3%
Charles Mix	0.8%	Hutchinson	0.8%	Sanborn	0.8%
Clark	1.3%	Hyde	7.9%	Shannon	7.9%
Clay	1.2%	Jackson	7.9%	Spink	1.3%
Codington	1.3%	Jerauld	0.8%	Stanley	7.9%
Corson	7.9%	Jones	7.9%	Sully	7.9%
Custer	7.9%	Kingsbury	0.8%	Todd	7.9%
Davison	0.8%	Lake	0.8%	Tripp	7.9%
Day	1.3%	Lawrence	7.9%	Turner	0.8%
Deuel	1.3%	Lincoln	0.8%	Union	1.2%
Dewey	7.9%	Lyman	7.9%	Walworth	7.9%
Douglas	0.8%	McCook	0.8%	Yankton	1.2%
Edmunds	1.3%	McPherson	1.3%	Ziebach	7.9%

GOALS FOR FEMALE PARTICIPATION IN EACH TRADE

Statewide - - - - - 6.9%

These goals are applicable to all the contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project

for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor when requesting permission to sublet shall provide written notification to the Department of Transportation as specified in Section 8.1 of the Standard Specifications for Roads and Bridges. When the subcontract is in excess of \$10,000, the request for permission to sublet shall list the name, address and telephone number of subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed. The Department of Transportation will then provide written notification to the Director of the Office of Federal Contract Compliance Programs through proper channels.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is as shown by county designation on the Title Sheet of the plans.

#### APPENDIX B

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - d. "Minority" includes:
    - (I) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (II) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (III) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (IV) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed

as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office, from Federal procurement contracting officers or from the South Dakota Department of Transportation. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization's responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or if referred, not employed by the Contractor, this shall be documented in the file with the reason thereof, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
  - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
  - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc., by specific review of the policy

with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
  - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
  - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
  - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
  - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
  - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
  - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligation.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group, has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goal and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply,

however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

\* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION FOR  
REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS  
FHWA 1273 (MARCH 10, 1994)**

**JANUARY 6, 2009**

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The following are amendments to the above contract provisions.

**Section IV. PAYMENT OF PREDETERMINED MINIMUM WAGE**

Delete the first paragraph and replace with the following:

Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts.

**Section IV.4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

Remove the words "and Helpers" from this title.

**Section IV.4.c. Helpers:**

Delete this paragraph in its entirety.

**Section IV.6 & 7 & Section V.2.a., c. & d. (2)**

Delete all reference to the word "helper" or "helpers" from these paragraphs.

**Section V. STATEMENTS AND PAYROLLS**

Delete the first paragraph and replace with the following:

Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts.

**Section V.2.b.**

Delete the first sentence and replace with the following:

The payroll records shall contain the name, individual identification number (e.g. the last four digits of the employee's social security number), social security number, and address of each such employee; his or her current classification; hourly rates of wages paid (including rates of contributions or cost anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid.

**Section V.2.c.**

Delete this paragraph in its entirety and replace with the following:

- c. Each contractor and subcontractor shall submit weekly, for each week in which any contract work is performed, to the Labor Compliance Officer, a payroll of wages paid each of its employees. The

address of the Labor Compliance Officer is: South Dakota Department of Transportation, Office of Labor Compliance, 700 East Broadway Avenue, Pierre, SD 57501-2586. The payroll submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), [paragraph 2b of this Section V], except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individual identification number for each employee. The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the State Highway Agency if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

### **Section V.2.d.(1)**

Delete this paragraph in its entirety and replace with the following:

- (1) that the payroll for the payroll period contains the information required to be provided under Section 5.5(a)(3)(i) of Regulations, 29 CFR part 5, the appropriate information is being maintained under Section 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

### **Section V.2.f.**

Delete this paragraph in its entirety and replace with the following:

- f. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

## **Section VI RECORD OF MATERIALS, SUPPLIES, AND LABOR**

Delete this section in its entirety.

## **Section VIII - (Regarding Engineer Authority for Safety)**

“Under the required contract provisions for federal-aid construction contracts, Section VIII, first paragraph, the State highway department contracting officer, his representatives and agents shall not determine what safeguards, safety devices, protection equipment or other needed actions are reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the work covered by the contract unless the contrary is specifically indicated in writing in the plans, construction change orders or in the proposal.”

\* \* \* \* \*



**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

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**I. GENERAL**

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4, and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

- a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

**II. NONDISCRIMINATION**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

#### 6. **Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full

efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

**8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

**9. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

### III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

#### **IV. PAYMENT OF PREDETERMINED MINIMUM WAGE**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

##### **1. General:**

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

##### **2. Classification:**

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or

disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

### **3. Payment of Fringe Benefits:**

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

### **4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:**

#### **a. Apprentices:**

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wagedetermination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

**5. Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**6. Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**7. Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

## **8. Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

## **9. Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

## **V. STATEMENTS AND PAYROLLS**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

### **1. Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

### **2. Payrolls and Payroll Records:**

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.



d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

## **VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR**

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## **VII. SUBLETTING OR ASSIGNING THE CONTRACT**

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

### **VIII. SAFETY: ACCIDENT PREVENTION**

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

### **IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

#### **NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS**

18 U.S.C. 1020 reads as follows:

***"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or***

***Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or***

***Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;***

***Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."***

## **X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.
2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

## **XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

### **1. Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **2. Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

#### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

#### **XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

\* \* \* \*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION REGARDING  
MINIMUM WAGE ON FEDERAL-AID PROJECTS**

**MAY 10, 2010**

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This proposal contains the most recent Davis-Bacon prevailing wage rates established by the United States Department of Labor (copy enclosed).

The Contractor and related subcontractors on this project shall pay their employees at least the highest wage listed for each job classification according to the county(ies) in which the work is actually performed.

Any Contractor or subcontractor performing work shall furnish copies of completed payroll reports together with the most recent [SD DOT Statement of Compliance Form](#) to the contracting agency. Incomplete payroll reports and payroll reports that do not include the most recent SD DOT Statement of Compliance Form will not be accepted and will be returned to the Contractor or subcontractor.

\* \* \* \* \*





**Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210**

**Davis-Bacon Act Wage Decisions**  
**State: South Dakota**  
**Construction Types: Heavy and Highway**  
**Counties: South Dakota Statewide**

<b>Agency:</b>	<b>* SUSD2011-001</b>
<b>Wage Decision Number:</b>	U.S. DOL <b>SD100010</b>
<b>Counties:</b>	Statewide: All Counties in South Dakota
<b>Wage Decision Date:</b>	<b>10/28/2011</b>
	<b><u>Rates</u>    <u>Fringes</u></b>
<b>LABORERS</b>	
<b>GROUP GL1</b> Air Tool Operator; Common Laborer; Landscape Worker; Flagger; Pilot Car Driver; Trucks under 26,000 GVW; Blue-top Checker; Materials Checker	14.76    0.00
<b>GROUP GL2</b> Mechanic Tender (Helper); Pipe Layer (except culvert); Form Builder Tender; Special Surface Finish Applicator; Striping	16.42    0.00
<b>GROUP GL3</b> Asphalt Plant Tender; Pile Driver Leadsman; Form Setter; Oiler/Greaser	18.02    0.00
<b>GROUP GL5</b> Carpenter; Form Builder	21.35    0.00
<b>GROUP GL6</b> Concrete Finisher; Painter; Grade Checker	20.36    0.00
<b>POWER EQUIPMENT OPERATORS</b>	
<b>GROUP G01</b> Concrete Paving Cure Machine; Concrete Paving Joint Sealer; Conveyor; Tractor (farm type with attachments); Self Propelled Broom; Concrete Routing Machine; Paver Feeder; Pugmill; Skid Steer	15.80    0.00
<b>GROUP G02</b> Bull Dozer 80 HP or less; Front End Loader 1.25 CY or less; Self Propelled Roller (except Hot Mix); Sheepsfoot/50Ton Pneumatic Roller; Pneumatic Tired Tractor or Crawler (includes Water Wagon and Power Spray units); Wagon Drill; Air Trac; Truck Type Auger; Concrete Paving Saw	17.24    0.00
<b>GROUP G03</b> Asphalt Distributor; Bull Dozer over 80 HP; Concrete Paving Finishing Machine; Backhoes/ Excavators 20 tons or less; Crusher (may include internal screening plant); Front End Loader over 1.25 CY; Rough Motor Grader; Self Propelled Hot Mix Roller; Push Tractor; Euclid or Dumpster; Material Spreader; Rumble Strip Machine	18.91    0.00
<b>GROUP G04</b> Asphalt Paving Machine Screed; Asphalt Paving Machine; Cranes/Derricks/Draglines/Pile Drivers/Shovels 30 to 50 tons; Backhoes/Excavators 21 to 40 tons; Maintenance Mechanic; Scrapers; Concrete Pump Truck	19.31    0.00
<b>GROUP G05</b> Asphalt Plant; Concrete Batch Plant; Backhoes/Excavators over 40 Tons; Cranes/ Derricks/Draglines/Pile Drivers/Shovels over 50 tons; Heavy Duty Mechanic; Finish Motor Grader; Automatic Fine Grader; Milling Machine; Certified Welder	21.33    0.00
<b>TRUCK DRIVERS</b>	
<b>GROUP GT1</b> Tandem Truck without trailer or pup; Single Axle Truck over 26,000 GVW with Trailer	15.34    0.00
<b>GROUP GT2</b> Semi-Tractor and Trailer; Tandem Truck with Pup	17.90    0.00
<b>ELECTRICIANS</b>	
<b>GROUP E01</b> Electrician	21.10    0.00

**\* In the listing above, the "SU" means that rates listed do not reflect collectively bargained wage and fringe benefit rates.**

**A COPY OF THIS DOCUMENT, COLORED COSMIC ORANGE, MUST BE CONSPICUOUSLY POSTED AT THE PROJECT SITE**

**Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210**

**Davis-Bacon Act Wage Decisions  
State: South Dakota  
Construction Types: Heavy and Highway  
Counties: South Dakota Statewide**

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WELDERS – Receive rate prescribed for craft performing operation to which welding is incidental.  
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award, pursuant to 29 CFR 5.5(a)(1)(ii); contractors are responsible for requesting SDDOT to secure necessary additional classifications.

For SDDOT Defined Work Classifications, please visit: [http://www.sddot.com/labor\\_dwc.asp](http://www.sddot.com/labor_dwc.asp)

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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**WAGE DETERMINATION APPEALS PROCESS**

1.) Has there been an initial decision in the matter? This can be:

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate)
- ruling on survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and our Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, Project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

**END OF GENERAL DECISION**

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
SUPPLEMENTAL SPECIFICATION FOR  
ERRATA**

**MARCH 3, 2010**

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**MAKE THE INDICATED CORRECTIONS TO THE FOLLOWING SPECIFIED SECTIONS:**

**Section 491.5 A, B, C, D, E – Page 290 – Add the following to the end of the first sentence of each of these sections:**

(square meter).

**Section 629.4 C – Page 351 – Replace the first sentence with the following:**

Remove Three Cable Guardrail will be measured to the nearest foot (0.1 meter) along the centerline of the cable.

**Section 629.4 D – Page 351 – Replace the first sentence with the following:**

Removal of Anchor Assembly will be measured by the each.

**Section 630.3 D – Page 354 – Replace the fourth sentence with the following:**

The drawings shall contain all components of the W beam end terminal.

**Section 634.2 – Page 371 – Replace the second paragraph with the following:**

Traffic control devices shall meet the crashworthy requirements of the National Cooperative Highway Research Program Report 350 (NCHRP 350) for Category I, II and III devices.

**Section 635.3 L – Page 383 – Delete and replace with the following:**

**L. Luminaires:** Luminaires shall be adjusted on the support so the lamina sets level as indicated by a small bubble level. Bolts shall be firmly tightened.

**Section 635.4 K – Page 385 – Delete and replace with the following:**

**K. Luminaires:** Measurement will be by the actual count of the various types and sizes of luminaires furnished and installed.

**Section 635.5 K – Page 387 – Delete and replace with the following:**

**K. Luminaires:** Payment for luminaires of the various types and sizes will be at their respective contract unit prices per each. Payment will be full compensation for furnishing and installing luminaires.

**Section 984.3 H – Page 504 – Replace the first paragraph with the following:**

Temporary road markers shall consist of a yellow or white plastic body providing a horizontal width and length of approximately 3 ½ inches (90 mm) in both dimensions and approximately ¾ inches (20

mm) high. If flexible vertical markers are used they shall be approximately 4 inches (100 mm) wide and approximately 2 inches (50 mm) high.

**Index – Page 532 – Under Portland Cement Concrete Pavement – Delete “Dowel and Tie Bars...517” and replace with the following:**

Dowel and Tie Bars..... 519

\* \* \* \* \*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SUPPLEMENTAL SPECIFICATION TO  
STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES**

**MARCH 3, 2010**

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All items included in this supplemental specification will govern over the Errata.

**MAKE THE INDICATED CHANGES TO THE FOLLOWING SPECIFIED SECTIONS:**

**Section 2.6 D – Page 11 – Delete and replace with the following:**

D. PCN

**Section 3.6 – Page 15 – Delete and replace with the following:**

**3.6 EXECUTION AND APPROVAL OF CONTRACT** - The contract shall be signed and returned by the successful bidder, together with the contract bond, within 20 calendar days after the receipt of the Notice of Award. If the contract is not executed by the Department within 15 calendar days following the receipt from the bidder of the signed contract and related documents, the bidder shall have the right to withdraw the bid without penalty. A contract will not be considered in effect until it has been executed by all parties to the contract.

**Section 3.7 – Page 15 – Delete the first sentence and replace with the following:**

Failure to execute the contract and file acceptable bonds within 20 calendar days after bidder's receipt of the Notice of Award shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Department, for liquidation of damages sustained.

**Section 4.6 – Page 19 – Delete and replace with the following:**

**4.6 FINAL CLEANING UP** - Before Acceptance of Field Work is made by the Area Office, the highway and areas occupied by the Contractor in connection with the work shall be cleaned of rubbish, excess materials, temporary structures, and equipment; and the work left in an acceptable condition, unless otherwise approved by the Engineer.

**Section 5.6 – Page 24 – Delete the last sentence of the seventh paragraph and replace with the following:**

The depth applies to the existing grade or ditch flowline within the right-of-way.

**Section 5.6 – Page 24 – Delete the last two sentences of the eighth paragraph and replace with the following:**

Contractors shall give at least 48 hour notice prior to commencement of excavation, excluding Saturdays, Sundays, and legal holidays of the state. South Dakota One Call phone number is **1-800-781-7474** or **811** within the State of South Dakota.

**Section 5.6 – Page 24 – Add the following to the list of items on page 25:**

Tunneling or Boring  
Duration of Excavation  
Nearest Cross Street

**Section 5.6 – Page 24 – Delete the third sentence of the last paragraph on page 25 and replace with the following:**

The utility shall as soon as possible but not longer than two hours from the notification time during the business day and not longer than four hours from the notification time outside of the business day or by the start time on the ticket, whichever is later provide all reasonably available practical information to the Contractor.

**Section 5.10 – Page 27 – Add the following sentence to this section:**

Neither the Department's authority to inspect all work nor any actual inspections performed by the Department during the course of construction shall constitute an acceptance of work performed, or operate to relieve the Contractor of its obligation to construct the project in compliance with the plans and specifications.

**Section 5.14 – Page 28 – Delete the first sentence of the first paragraph and replace with the following:**

The Contractor shall maintain the work during construction and until the Area Office issues the Acceptance of Field Work.

**Section 5.14 – Page 28 – Delete the last paragraph and replace with the following:**

Cost of maintenance work during construction and before the Area Office issues the Acceptance of Field Work shall be included in the unit price bid on the various pay items and the Contractor will not be paid an additional amount for such work.

**Section 5.16 – Page 29 – Delete and replace with the following:**

**5.16 ACCEPTANCE OF FIELD WORK** - When the contract work, including authorized modifications and final cleanup has been completed, the Area Engineer or his designee will, within fourteen days, make a final inspection of the work. When provided in the Contract, the Area Engineer or his designee may make inspections following completion of portions of the contract. If the work is found to conform with the requirements of the Contract, the Area Engineer or his designee will issue written notification to the Contractor of Acceptance of Field Work. Such notice is not to be construed as an acceptance by the Area Engineer or his designee of previously noted defective or unauthorized work, or of unauthorized work subsequently determined during the final computations of field measurements. Should the work fail to conform with requirements of the Contract, a written statement of the features to be remedied will be given the Contractor. Final Acceptance will not be made until the Contractor advises the Engineer that the corrections have been made and the requirements have been met.

**Section 5.17 – Page 29 – Delete the first paragraph and replace with the following:**

**5.17 CLAIMS FOR ADJUSTMENT AND DISPUTES** - If the Contractor deems that additional compensation is warranted for work or materials not covered in the Contract and not ordered as extra work as defined herein, the Contractor shall give the Area Engineer written notice of the claim for additional compensation.

**Section 5.17 – Page 29 – Delete the fourth paragraph and replace with the following:**

Under no circumstances will a claim be considered if written notification is made more than 30 days after the final payment is made.

**Section 5.17 – Page 30 – Delete the sixth and seventh paragraphs and replace with the following two paragraphs:**

The Contractor hereby agrees to waive any claim for additional compensation if timely written notification is not furnished and the Area Engineer is not provided the opportunity to keep account of or determine costs, to incorporate alternate methods of accomplishing the disputed work or to otherwise resolve the claim.

A Claims Documentation Form, furnished by the Department, shall be completed by the Contractor and submitted to the Area Engineer after completion of the work on which the claim is based. The Claims Documentation Form shall be completed within 120 calendar days after completion of the work unless an extension is granted, in writing, by the Area Engineer.

**Section 5.17 – Page 30 – Delete the last three paragraphs of this section and replace with the following five paragraphs:**

Claims which are properly submitted, but which are not approved, will be automatically escalated to the next higher authority level within the Department for review. The Secretary of Transportation has final resolution authority on all submitted claims.

Claims may be submitted by the Department to a third-party claim investigator for further review and investigation. The report prepared by the claim investigator shall not be shared with the Contractor, nor shall the report be used in subsequent administrative or legal proceedings. Failure to fully cooperate with the third-party investigator may result in

denial of the claim. After the Secretary of Transportation receives the report, the parties, by mutual agreement, may initiate a non-binding mediation to attempt to resolve the claim.

If the claim is determined completely or partially valid, those portions determined valid, plus interest computed at the rate of 4.25% per annum for the time period between the date shown on the Region Engineer's letter of Final Acceptance and the date the claim was resolved, will be paid.

If a claim is determined completely or partially valid in a subsequent proceeding in circuit court and pre-judgment interest is awarded by the court on all or a portion of the judgment, that interest shall be computed at the rate of 4.25% per annum.

Nothing in this section shall be construed as establishing any claim contrary to the terms of Section 4.2.

**Section 7.6 – Page 37 – Add the following paragraph to this section:**

All workers within the right of way who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel intended to provide conspicuity during both daytime and nighttime usage, and meeting the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear".

**Section 7.12 – Page 39 – Delete the last sentence of the second paragraph and replace with the following:**

The Contractor's responsibility will not be released until completion of the project and Final Acceptance is made, as noted by the date shown on the Region Engineer's letter of Final Acceptance.

**Section 7.14 – Page 39 – Delete this section and replace with the following:**

**7.14 RESPONSIBILITY FOR DAMAGE CLAIMS** - The Contractor shall hold harmless and indemnify the Department, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damages received or sustained by any person, persons or property arising from the operations of the said Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act", or any other law, ordinance, order, or decree; and so much of the money due the said Contractor under and by virtue of his contract as may be considered necessary by the Department for such purpose may be retained for the use of the State; or in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Department; money due the Contractor will not be withheld when the Contractor produces satisfactory written confirmation from its insurer that adequate public liability insurance and property damage insurance providing coverage for such particular claims as may be made is in force; a copy of a certificate of insurance, without further confirmation of coverage for the particular claim being made, will not be sufficient to satisfy the requirement of written confirmation.

**Section 7.15 – Page 40 – Delete the first sentence and replace with the following:**

**7.15 LIABILITY INSURANCE** - The Contractor shall procure and maintain at the Contractor's expense, during duration of the Contract, liability insurance with an insurance company authorized to do business in the state of South Dakota, for damages imposed by law.

**Section 7.16 – Page 40 – Delete the second sentence of the last paragraph and replace with the following:**

In such event, the Contractor shall not be relieved of liability or responsibility during the period the work is so opened and prior to Acceptance of Field Work.

**Section 7.17 – Page 40 – Delete the first paragraph and replace with the following two paragraphs:**

**CONTRACTOR'S RESPONSIBILITY FOR WORK** - The Contractor is responsible for the work until the Acceptance of Field Work is made by the Area Office, except as set forth in Section 4.4 B.1. The Contractor shall protect the work against injury or damage from all causes, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and replace all work that is injured or damaged prior to the Acceptance of Field Work, at no additional cost to the Department. Damage to work due to unforeseeable

causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God, acts of the public enemy, or acts of governmental authorities shall be restored by the Contractor at the Department's expense according to subsection 4.2 or 4.3, as applicable.

Following the Acceptance of Field Work, but prior to Final Acceptance as described in Section 9.9, the Contractor shall be responsible for damage to work resulting from an act, omission, neglect, or misconduct in the Contractor's manner or method of executing the work, or due to defective work or materials at no additional cost to the Department.

**Section 8.1 – Page 45 – Delete and replace with the following:**

**8.1 SUBLETTING OF CONTRACT** - The Contractor shall not sublet, sell, transfer, assign, or dispose of the contract or contracts or any portion of them, without written consent of the Engineer. Each request to sublet shall be submitted on the form provided by the Engineer. The Contractor shall submit a request to sublet for any contracting firms a subcontractor proposes to use as a lower tier subcontractor. The Contractor shall obtain approval of each subcontractor before the start of the work performed by the subcontractor.

The Contractor will be permitted to sublet up to 50 percent of the contract amount, based on the contract unit prices, but shall perform work amounting to not less than 50 percent of the total contract amount with his own organization.

The Department will consider the Contractor's own organization to include only workers employed and paid directly by the Contractor, equipment owned or rented by the Contractor, and materials purchased by the Contractor for its use in performing Contract work. This does not include employees, equipment, or materials purchased by or incorporated into work of any subcontractor, assignee, or agent of the Contractor.

The Department will not consider as subcontracting the following; 1) any material produced outside the project limits including but not limited to the production of sand, gravel, crushed stone, batched concrete aggregates, ready mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any materials delivered by established and recognized commercial plants; or 2) delivery of these materials to the work site from an off-site location in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies. Project limits is defined as being within a 1/2 mile radius of the project proper.

Any items designated in the contract as "specialty items" may be performed by subcontract and the cost of designated specialty items performed by subcontract will be deducted from the total contract amount before computing the amount of work required to be performed by the Contractor's own organization.

The Contractor shall give assurance to the Engineer that all pertinent provisions of the prime contract including minimum wage for labor shall apply to the work sublet. Subcontract, or transfer of contract, shall not relieve the Contractor of his responsibilities and liability under the contract and bonds.

**Section 8.2 – Page 45 – Delete and replace with the following:**

**8.2 NOTICE TO PROCEED** - The Notice to Proceed shall consist of written notification to the Contractor to proceed with the work. Such notification will be issued within 15 calendar days following the receipt from the bidder of the signed contract and related documents. The contract time will start on the date the Contractor actually starts construction work or 30 calendar days after the date of the Notice to Proceed, whichever date is earlier. The Contractor shall not begin work prior to the date of the Notice to Proceed.

**Section 8.6 A – Page 48 – Delete the first paragraph on page 48 and replace with the following:**

If for reasons beyond the Contractor's control the work cannot be completed within the contract time as specified or as extended according to the provisions of this section, the Contractor may make a written request for an extension of contract time. The written request shall be made at any time prior to the expiration of the contract time as extended. The Contractor's time extension request shall set forth the reasons which will justify an extension of time.

A Time Extension Request Form, furnished by the Department, shall be completed by the Contractor and submitted to the Area Engineer. If the written request was properly filed in accordance with the requirements of this section, the time extension request will be forwarded through the proper channels, to the Secretary of Transportation for final resolution.

The Time Extension Request Form shall be fully completed and will contain the following:



1. A narrative justification citing the basis for the time extension.
2. A statement of the amount of extra compensation, including liquidated damages, incentive, or disincentive associated with the time extension.
3. A signed and notarized statement that the information furnished is true and fully documented.
4. Permission for the Department or its authorized representative to examine all Contractor records concerning this time extension request.

The Secretary of Transportation may submit the time extension request to a third-party investigator for further review and investigation. The report prepared by the investigator shall not be shared with the Contractor, nor shall the report be used in subsequent administrative or legal proceedings. Failure to fully cooperate with the third-party investigator may result in denial of the time extension request. After the Secretary of Transportation receives the report, the parties, by mutual agreement, may initiate a non-binding mediation to attempt to resolve the time extension request.

**Section 8.6 A – Page 48 – Delete the first sentence of the second to last paragraph and replace with the following:**

If the Secretary of Transportation finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, the Secretary may extend the time for completion in such amount as the conditions justify.

**Section 8.6 A – Page 48 – Delete the last paragraph and replace with the following:**

When Acceptance of Field Work has been duly made as prescribed in Section 5.16, the daily time count/assessment will cease. The daily time count/assessment may resume if the Contractor fails to provide, in a timely manner, required project documentation as ordered by the Area Engineer. The daily time count/assessment may also resume when in accordance with Section 7.17, repairs, rework, or other activities are ordered for work that the Contractor is responsible for.

**Section 8.6 B – Page 50 – Delete the second paragraph on page 50 and replace with the following:**

If for reasons beyond the Contractor's control the work cannot be completed within the contract time as specified or as extended according to the provisions of this section, the Contractor may make a written request for an extension of contract time. The written request shall be made at any time prior to the expiration of the contract time as extended. The Contractor's time extension request shall set forth the reasons which will justify an extension of time.

A Time Extension Request Form, furnished by the Department, shall be completed by the Contractor and submitted to the Area Engineer. If the written request was properly filed in accordance with the requirements of this section, the time extension request will be forwarded through the proper channels, to the Secretary of Transportation for final resolution.

The Time Extension Request Form shall be fully completed and will contain the following:

1. A narrative justification citing the basis for the time extension.
2. A statement of the amount of extra compensation, including liquidated damages, incentive, or disincentive associated with the time extension.
3. A signed and notarized statement that the information furnished is true and fully documented.
4. Permission for the Department or its authorized representative to examine all Contractor records concerning this time extension request.

The Secretary of Transportation may submit the time extension request to a third-party investigator for further review and investigation. The report prepared by the investigator shall not be shared with the Contractor, nor shall the report be used in subsequent administrative or legal proceedings. Failure to fully cooperate with the third-party investigator may result in denial of the time extension request. After the Secretary of Transportation receives the report, the parties, by mutual agreement, may initiate a non-binding mediation to attempt to resolve the time extension request.

**Section 8.6 B – Page 51 – Delete the last sentence of the second to last paragraph and replace with the following:**

If the Secretary of Transportation finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, the Secretary may extend the time for completion in such amount as the conditions justify. The extended time for completion shall then be in full force and effect the same as though it were the original time for completion.

**Section 8.6 B – Page 51 – Delete the last paragraph and replace with the following:**

When Acceptance of Field Work has been duly made as prescribed in Section 5.16, the daily time count/assessment will cease. The daily time count/assessment may resume if the Contractor fails to provide, in a timely manner, required project documentation as ordered by the Area Engineer. The daily time count/assessment may also resume when in accordance with Section 7.17, repairs, rework, or other activities are ordered for work that the Contractor is responsible for.

**Section 8.7 – Page 51 – Delete the last sentence of the second paragraph and replace with the following:**

This sum shall be considered and treated not as a penalty but as liquidated damages due the Department from the Contractor by reason of added cost of engineering and supervision resulting from failure to complete the work within the time specified in the contract.

**Section 9.1 B – Page 56 – Delete the fourth paragraph on page 57 and replace with the following:**

Loader Scales - Loader scales will be allowed to be used on contracts when the quantity per line item of granular material to be weighed for payment is less than 10,000 tons (10,000 metric tons).

**Section 9.1 B – Page 56 – Add the following sentence to the end of the sixth paragraph on page 57:**

The accuracy check shall be performed prior to weighing the material for payment and then once per week thereafter.

**Section 9.4 – Page 61 – Delete and replace with the following:**

**9.4 COMPENSATION FOR ALTERED QUANTITIES** - When the accepted quantities of work vary from the estimated quantities in the Contract, the Contractor shall accept as payment in full, payment at the original contract unit prices for the accepted quantities of work. Allowance will not be made for increased expense, except as provided in Section 4.2. Allowance will also not be made for loss of expected reimbursement or loss of anticipated profits.

**Section 9.5 D – Page 62 – Delete the first paragraph of this section and replace with the following:**

**D. Equipment:** For machinery or special equipment including fuel and lubricants, plus transportation costs, authorized by the Engineer, the Contractor shall be paid in accordance with the provisions and rates set forth in the South Dakota Equipment Rental Rates Book which is currently established as the “Rental Rate Blue Book” published by EquipmentWatch, a division of Penton Media, Inc. For purposes of determining an hourly rate, the monthly rate divided by 176 shall be used. This rate will be adjusted for regional factors, age and operating expenses as set forth in the “Rental Rate Blue Book”.

**Section 9.7 – Page 64 – Add the following sentence to the end of the second to last paragraph:**

Progress payments shall not constitute acceptance of the work.

**Section 9.9 - Page 65 - Delete this section and replace with the following:**

**9.9 FINAL ACCEPTANCE AND FINAL PAYMENT** - When Acceptance of Field Work has been made as prescribed in Section 5.16, and all project documentation has been provided, the Engineer will prepare the final estimate of the quantities of the various classes of work performed. After the Engineer determines the final estimate, the Contractor will be paid the entire sum found to be due after deducting previous payments and amounts to be retained or deducted under the provisions of the contract.

Prior partial estimates and payments shall be subject to correction in the final estimate of payment. Final payment will be due 120 days after the date shown on the Region Engineer’s letter of Final Acceptance.

Interest will be added to payments in excess of \$2000 which are due the Contractor and remain unpaid 120 days after the date shown on the Region Engineer's letter of Final Acceptance. Interest will accrue at a rate of 4.25% per annum for the time period after the noted 120 days until final payment is made.

**Section 9.12 – Page 66 – Delete and replace with the following:**

**9.12 THIS SECTION INTENTIONALLY LEFT BLANK**

**Section 120.2 A – Page 73 – Delete and replace with the following:**

- A. Unclassified Excavation:** All materials except those classified as rock excavation, unclassified/rock excavation, muck excavation, option borrow excavation, contractor furnished borrow, or borrow unclassified excavation encountered during the construction of the work, regardless of their nature or manner in which they are removed, will be considered unclassified excavation.

**Section 120.2 – Page 73 – Add the following to the end of this Section:**

- I. Option Borrow Excavation:** Material, furnished by the State, from a pit or other source. The Contractor may use this material at his option.
- J. Contractor Furnished Borrow:** Material, furnished by the Contractor, from a pit or other source.
- K. Borrow Unclassified Excavation:** Material, furnished by the State, from a pit or other source. The Contractor must use this material.

**Section 120.3 – Page 74 – Delete the fifth paragraph and replace with the following:**

The subgrade shall be finished to within minus 0.04 feet (13 mm) to plus 0.08 feet (25 mm) from the design grade and typical section shown in the plans and to within  $\pm 0.5$  percent of the typical section cross slope. The quarter crown within any 12 foot (3.6 m) transverse length shall not exceed 0.04 feet (13 mm) when measured with a straight edge, stringline, or by other suitable equipment.

**Section 120.3 B.3.a – Page 77 – Delete the fifth paragraph and replace with the following:**

Density shall be determined in accordance with SD 105 (AASHTO T 191), SD 106, or SD 114 (AASHTO T 310).

**Section 120.3 B.3.a – Page 78 – Add the following sentence to the end of the second to last paragraph:**

If the material does not contain enough fines to allow for conventional density testing (SD 105 or SD 106), the material shall be compacted as specified for A-2-4(0) and A-3 soils.

**Section 120.4 – Page 79 – Add the following to the end of this Section:**

- I. Borrow Unclassified Excavation:** Borrow unclassified excavation will be measured in its original position by cross sectioning. Volumes will be computed in cubic yards (cubic meters) by the average end area method.

Original cross sections will be taken prior to removal of any material and final sections will be taken following replacement of topsoil. Salvaged topsoil which is stockpiled from the borrow sources will be included as borrow unclassified excavation.

The quantity of topsoil stockpiled and respread on borrow sources will be determined by measuring the stockpiles prior to removal of the material from the stockpiles.

**Section 120.5 – Page 81 – Add the following to the end of this Section:**

- I. Borrow Unclassified Excavation:** Borrow unclassified excavation will be paid for at the contract unit price per cubic yard (cubic meter). Payment will be full compensation for excavation and furnishing the material on the project, construction and compaction of embankments, shaping of slopes, finishing of surface, completion of subgrade, shoulders, and roadway, and maintenance, and for furnishing materials (except topsoil), labor, and incidentals required for restoration of the pit.

Topsoil which is stockpiled from the borrow source will be respread and paid for at the contract unit price per cubic yard (cubic meter) of borrow unclassified excavation and placing topsoil.

**Section 120.5 F – Page 82 – Delete the last sentence and replace with the following:**

Topsoil, seed, fertilizer and mulch for the restoration of the pit shall be incidental to the unit price per cubic yard (cubic meter) of contractor furnished borrow.

**Section 210.3 – Page 85 – Delete the second to last paragraph and replace with the following:**

The subgrade shall be finished to within minus 0.04 feet (13 mm) to plus 0.08 feet (25 mm) from the design grade and typical section shown in the plans and to within  $\pm 0.5$  percent of the typical section cross slope. The quarter crown within any 12 foot (3.6 m) transverse length shall not exceed 0.04 feet (13 mm) when measured with a straight edge, stringline, or by other suitable equipment.

**Section 260.3 A – Page 93 - Delete the first paragraph and replace with the following:**

**A. Subbase and Base Course:** Roadway shaping shall be performed in accordance with Section 210.3 B prior to placement of the material.

**Section 260.3 A – Page 94 - Delete the last paragraph and replace with the following:**

Recycled Portland cement concrete pavement used as a granular base material shall not be used for Base Course, Salvaged Base Course, or in areas where drainage fabric, edge drains, or other similar drainage systems are present.

**Section 270.1 – Page 97 – Delete and replace with the following:**

**270.1 DESCRIPTION**

This work consists of salvaging, processing or crushing, and stockpiling salvaged material from the existing roadway. Salvaged material shall consist of granular material, asphalt concrete mix material, or asphalt mix and granular base material.

**Section 270.2 – Page 97 – Delete this section and replace with the following:**

**270.2 MATERIALS**

The salvaged material shall be processed or crushed to provide material meeting the following gradation.

<u>Sieve Size</u>	<u>% Passing</u>
1 ½ inch (37.5 mm)	100
1 inch (25.0 mm)	95-100

**Section 270.3 – Page 97 – Delete and replace with the following:**

**270.3 CONSTRUCTION REQUIREMENTS**

**A. Salvage and Stockpile Granular Material or Asphalt Mix and Granular Base Material:**

- 1. Salvaging:** The salvaged material shall be moved and loaded in a manner that minimizes waste and avoids contamination of the salvage material with underlying subgrade soil. Scrapers shall not be used for the removing or loading operations, but may be used to haul the material. Salvaging of material shall not exceed two miles (3.2 kilometers) in advance of the grading operation, unless otherwise directed. The material shall be moved toward the center of the road, to the extent necessary to ensure that salvage material is not lost down inslopes.
- 2. Processing:** Processing and blending may be accomplished in place, provided the Contractor's method meets the blending and gradation requirements and has positive depth control.

- 3. Stockpiling:** Asphalt concrete mix and granular material shall be processed or crushed and stockpiled together so that a uniform blend is obtained. The salvaged material may be stockpiled at contractor provided sites. Prior to stockpiling, the stockpile site shall be prepared by removal of the top six inches (150 mm) of topsoil and the area bladed smooth.

**B. Salvage and Stockpile Asphalt Mix Material:**

- 1. Salvaging:** The salvaged material shall be moved and loaded in a manner that minimizes waste and avoids contamination of the salvage material. Scrapers shall not be used for the removing or loading operations, but may be used to haul the material. Salvaging of material shall not exceed two miles (3.2 kilometers) in advance of the grading operation, unless otherwise directed. The material shall be moved toward the center of the road, to the extent necessary to ensure that salvage material is not lost down inslopes.
- 2. Stockpiling:** Salvaged asphalt mix material shall be processed or crushed and stockpiled so that a uniform blend is obtained. Prior to stockpiling, the stockpile site shall be prepared by removal of the top six inches (150 mm) of topsoil and the area bladed smooth. Stockpiles shall be constructed in accordance with Section 320. The stockpiles shall not contain dirt, grease, oil, brick, paving fabric, clay balls, organic debris, and other foreign material.

**Section 270.4 – Page 97 – Delete and replace with the following:**

**270.4 METHOD OF MEASUREMENT**

Salvage and stockpile granular material, salvage and stockpile asphalt mix and granular base material, and salvage and stockpile asphalt mix material will be measured to the nearest 0.1 ton (0.1 metric ton) or 0.1 cubic yard (0.1 cubic meter) at the time it is hauled to the road.

When less than 5000 tons (4500 metric tons) of salvaged material is generated on a project, the material may be measured in a stockpile and converted to tons (metric tons) using a factor of 1.5 tons per Cu. Yd. (1.78 metric tons per cubic meter), in lieu of weighing the material.

Alternate measurement techniques may be allowed if agreed upon by the Contractor and Engineer prior to salvaging operations commencing.

Material stockpiled for future use will be measured in the stockpile and converted to tons (metric tons) using a factor of 1.50 tons per Cu. Yd. (1.78 metric tons per cubic meter).

The unclassified excavation quantities will not be increased or decreased to reflect whether salvaged material was taken from cut or fill sections.

**Section 270.5 – Page 97 – Delete and replace with the following:**

**270.5 BASIS OF PAYMENT**

Salvage and stockpile granular material, salvage and stockpile asphalt mix and granular base material, and salvage and stockpile asphalt mix material will be paid for at the contract unit price per ton (metric ton) or cubic yard (cubic meter). Payment will be full compensation for work required to salvage, haul, process or crush, and stockpile the material.

Removal of this material is included in and paid for under the item of unclassified excavation.

**Section 280.2 – Page 99 – Delete this section and replace with the following:**

**280.2 MATERIALS**

The asphalt mix and granular material shall be processed to provide material meeting the following gradation.

<u>Sieve Size</u>	<u>% Passing</u>
1 ½ inch (37.5 mm)	100
1 inch (25.0 mm)	95-100

**Section 320.3 B.1 – Page 103 – Delete the first sentence of the fourth paragraph and replace with the following:**

Burner fuel used for production of asphalt concrete shall be propane, butane, natural gas, Grade 1 fuel oil, Grade 2 fuel oil, Grade 4 fuel oil, Grade 4 (light) fuel oil, Grade 5 (light or heavy) fuel oil, or Grade 6 fuel oil.

**Section 320.3 B.1 – Page 103 – Add the following to the end of the seventh paragraph:**

An accurate thermometer must be installed in the tank so the temperature can be monitored.

**Section 320.3 B.4 – Page 104 – Delete the third sentence of the first paragraph.**

**Section 320.3 B.4 – Page 105 – Delete the last sentence of the third paragraph and replace with the following:**

The system shall be capable of manually controlling the transverse slope and the screed height.

**Section 320.3 B.5 – Page 105 – Delete the last sentence of the first paragraph and replace with the following:**

The rollers shall be capable of being reversed smoothly, without shoving or tearing the asphalt concrete.

**Section 320.3 C.3.d – Page 106 – Delete and replace with the following:**

- d. A one-gallon (four liter) sample of asphalt binder intended for use shall be obtained from the designated supplier for the project.

**Section 320.3 D – Page 107 – Delete the last sentence of the fifth paragraph and replace with the following:**

A water spray system must be installed at the discharge end of the pug mill. This water system must be used when directed by the Engineer to prevent fugitive lime dust from being released into the air.

**Section 320.3 E – Page 107 – Add the following after the fourth sentence in the first paragraph:**

No material shall be used which could adversely affect the asphalt concrete.

**Section 320.3 F – Page 107 – Add the following new paragraph after the first paragraph:**

Surfaces which have been primed with cutback asphalt shall be allowed to cure for a minimum of 72 hours prior to being covered.

**Section 320.3 F – Page 107 – Add the following to the end of the third paragraph:**

In lieu of a self-propelled paver, asphalt concrete may be placed by a shouldering machine on shoulders less than 6 feet (2 m) in width.

**Section 320.3 F – Page 110 – Delete the first paragraph at the top of Page 110 and replace with the following:**

Irregularities shall be corrected before the temperature of the asphalt mix drops below 175° F (80° C). The longitudinal profile can only be improved by using a grinder with diamond blades mounted on a horizontal shaft and when approved by the Engineer. Areas that have been ground shall not be left smooth or polished, but shall have a uniform texture equal in roughness to the surrounding unground asphalt concrete. Grinding shall be daylighted to the outside edge of the pavement. Ground surfaces shall be flushed sealed. Under no circumstances shall operations continue when it becomes evident final rolling is not producing a smooth, uniform, compacted surface free from roller marks and other irregularities.

**Section 320.4 A – Page 111 – Add the following after the first sentence:**

Quantities of asphalt binder in excess of the asphalt content listed on the job mix formula plus 0.3% tolerance will not be accepted for payment.

**Section 320.4 B – Page 111 – Delete the last two sentences of the first paragraph and replace with the following:**

The mixture of mineral aggregate, asphalt binder, and hydrated lime, when required, will be weighed after mixing. No deduction will be made for the weight of the asphalt binder or hydrated lime, when required, included in the mixture.

**Section 320.4 E – Page 112 – Add the following after the first sentence:**

Quantities of hydrated lime in excess of the lime content listed on the job mix formula plus 0.1% tolerance will not be accepted for payment.

**Section 320.5 C – Page 112 – Add the following sentence to the end of the paragraph:**

Payment will be full compensation for all labor, equipment, materials, and all other items incidental to sampling and repair of the sample locations to the satisfaction of the Engineer.

**Section 321.3 B – Page 113 – Delete and replace with the following:**

**B. Density:** The minimum density requirement shall be 92 percent of the maximum specific gravity of the test specimens prepared in the field in accordance with SD 312. The compacted density of asphalt concrete shall be determined according to SD 311.

**Section 324.5 – Page 115 and 116 – Delete the last sentence and replace with the following:**

When required, the following shall also be included in the contract unit price per ton (metric ton) for Asphalt Concrete Composite: Asphalt for Prime MC-70, Blotting Sand for Prime, Asphalt for Flush Seal SS-1h or CSS-1h, Sand for Flush seal, Hydrated Lime, equipment, labor and incidentals necessary.

**Section 330.2 – Page 121 – Add the following to the end of this section:**

**D. Sand for Fog Seal:** Section 879

**Section 330.3 A.2.b – Page 121 – Add the following paragraph after the second paragraph:**

Surfaces primed with cutback asphalt shall be allowed to cure for a minimum of 72 hours prior to being overlaid with asphalt concrete.

**Section 330.3 F – Page 123 – Delete the first sentence of the fourth paragraph and replace with the following:**

When applying fog seal coats, a light application of sand may be ordered by the Engineer to prevent material pickup.

**Section 330.4 – Page 124 – Add the following to the end of this section:**

**D. Sand for Fog Seal:** Sand for fog seal will be measured to the nearest 0.1 ton (0.1 metric ton).

**Section 330.5 – Page 124 – Add the following to the end of this section:**

**D. Sand for Fog Seal:** Sand for fog seal will be paid for at the contract unit price per ton (metric ton) complete in place. Payment will be full compensation for furnishing, installing, and all incidentals required to complete the work.

**Section 332.2 – Page 125 – Delete this section and replace with the following:**

**332.2 MATERIALS**

The material produced by cold milling shall be processed or crushed to provide material meeting the following requirements.

<u>Sieve Size</u>	<u>% Passing</u>
1 ½ inch (37.5 mm)	100
1 inch (25.0 mm)	95-100

Cold milled asphalt concrete material used in hot mixed asphalt as recycled asphalt pavement (RAP) shall have the 1 inch sieve size requirement waived.

**Section 332.3 B – Page 125 – Delete the first paragraph and replace with the following:**

- B. Equipment:** The equipment for cold milling shall consist of a rotating drum equipped with teeth capable of removing material to a depth of up to three inches (75 mm) in one pass, producing a uniform surface finish.

**Section 332.3 C – Page 125 – Delete the last paragraph of this section on page 126 and replace with the following:**

When traffic will be exposed to the milled surface, all cold milling asphalt concrete shall be accomplished on one-half of the roadway at a time. The Contractor shall schedule the cold milling asphalt concrete operations so that there are no drop offs, uneven lanes, or windrows of milled material remaining on the roadway overnight. At the end of the day the Contractor shall place cold milled asphalt concrete material to provide temporary ramps as a transition onto or off of the milled surface and the project limits, bridge approaches, and intersecting roads. The resultant transition shall be of sufficient length to provide a slope no steeper than 20:1.

- 1. Cold Milling Asphalt Concrete and Placing Cold Milled Material:** Some areas of the shoulder may require the movement of cold milled asphalt concrete material either ahead or back to achieve the required cross section. No separate payment will be made for the movement of this material.

Material placed on the shoulders shall be compacted according to Section 260.3 B of the Standard Specifications except that a pneumatic tired roller with an effective roller weight of at least 250 pounds per inch (4.5 kilograms per mm) of roller width will be required.

- 2. Cold Milling Asphalt Concrete:** Loose material resulting from the milling shall be immediately picked up, hauled to the stockpile site(s), and stockpiled. Prior to allowing traffic on the milled surface, the surface shall be thoroughly broomed free of remaining loose material.

Cold milled asphalt concrete material shall be processed or crushed and stockpiled so that a uniform blend is obtained. Prior to stockpiling, the stockpile site shall be prepared by removal of the top six inches (150 mm) of topsoil and the area bladed smooth. Stockpiles shall be constructed in accordance with Section 320. The stockpiles shall not contain dirt, grease, oil, brick, paving fabric, clay balls, organic debris, and other foreign material

**Section 332.4 – Page 126 – Delete and replace with the following:**

**332.4 METHOD OF MEASUREMENT**

- A. Cold Milling Asphalt Concrete and Placing Cold Milled Material:** Cold Milling Asphalt Concrete and Placing Cold Milled Material will not be measured. Plans quantity will be used. If changes from the plans quantity are ordered these areas will be measured and the plans quantity will be appropriately adjusted.
- B. Cold Milling Asphalt Concrete:** Cold milling Asphalt Concrete will not be measured. Plans quantity will be used. If changes from the plans quantity are ordered these areas will be measured and the plans quantity will be appropriately adjusted.

**Section 332.5 – Page 126 – Delete and replace with the following:**

**332.5 BASIS OF PAYMENT**

- A. Cold Milling Asphalt Concrete and Placing Cold Milled Material:** Cold Milling Asphalt Concrete and Placing Cold Milled Material will be paid for at the contract unit price per square yard (square meter) or as indicated in the plans. Payment will be full compensation for the removal of grass, weeds, topsoil, etc. from the placement location, milling, removing, placing, and compaction of the cold milled material and the brooming, equipment, labor, and all incidentals required.
- B. Cold Milling Asphalt Concrete:** Cold Milling Asphalt Concrete will be paid for at the contract unit price per square yard (square meter) or as indicated in the plans. Payment will be full compensation for milling, removing, hauling, stockpiling, processing or crushing the cold milled material, brooming, equipment, labor, and all incidentals required.



**Section 350.2 – Page 127 – Delete this section and replace with the following:**

The sealant shall conform to the requirements of ASTM D-6690 Type IV.

The sealant material shall have a unit weight no greater than 9.35 lbs./gal (1124 kilograms per cubic meter).

Only products that meet the above requirements and have performed satisfactorily based on Department analysis may be used. A listing of acceptable products meeting ASTM D-6690 Type IV requirements may be obtained from the Department's Approved Products List. Products on the Approved Products list for Joint Sealant for Asphalt Over Long Jointed Concrete Pavement may also be used.

The blocking medium shall be an inert, compressible material, which is compatible with the sealant.

**Section 350.4 – Page 129 – Add the following sentence to this section:**

Quantities of asphalt concrete crack sealing with a manufacturer's unit weight in excess of the specified unit weight will be reduced to the specified maximum unit weight prior to measurement for payment.

**Section 360.3 A – Page 131 – Delete the minimum temperature and seasonal limitations table and replace with the following:**

Minimum temperatures and seasonal limitations are as follows:

Cover Aggregates	Air and Surface Temp. (In the Shade and Rising)	Seasonal Limitations (Dates are Inclusive)
Type 1	70° F (21° C)	May 15 - Aug. 31
Type 2	70° F (21° C)	May 15 - Aug. 31
Type 3	70° F (21° C)	May 15 - Sept. 15

**Section 360.3 B.3 – Page 131 – Delete the last sentence of this section:**

**Section 370.2 – Page 135 – Delete the first paragraph of this section and replace with the following:**

The RAP material, after processing, shall meet the following gradation.

<u>Sieve Size</u>	<u>% Passing</u>
1 ¼ inch (31.5 mm)	100
1 inch (25.0 mm)	95-100

**Section 380.2 – Page 139 – Add the following to the end of this section:**

- L. Epoxy Resin Adhesive:** Epoxy resin adhesive shall be of the type intended for horizontal applications, and shall conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3).

**Section 380.3 B.1 – Page 140 – Delete the first paragraph on page 141 and replace with the following:**

When automatic moisture sensing equipment is used for an aggregate component, the batch ticket shall show the percent of moisture for the aggregate component with moisture sensing equipment. The results of the most recent two hour moisture test shall be shown for aggregate components without moisture sensing equipment.

The W/C ratio shall be calculated using the following formula and rounded to the nearest 0.01:

$$W / C \text{ ratio} = \left[ \frac{\text{weight of free water} + \text{weight of batch water}}{\text{weight of cement} + \text{weight of supplementary cementitious material}} \right]$$

weight of free water = (% total moisture in aggregate - % absorption of aggregate) x weight of aggregate

weight of batch water = total weight of water added to the batch of concrete either at the plant or in the truck

The weight of free water shall be calculated for both the fine aggregate and the coarse aggregate.

**Section 380.3 D – Page 146 – Add the following paragraph to the end of this section:**

The amount of batch water and aggregates added to the mix shall be adjusted accordingly using the results of the most recent two hour moisture tests. If automatic moisture sensing equipment is used, the Engineer may allow the use of the automatic moisture sensing results to make adjustments.

**Section 380.3 E – Page 146 – Delete the second sentence and replace with the following:**

Truck mixing will be permitted only when approved by the Engineer.

**Section 380.3 E – Page 146 – Delete the fifth paragraph and replace with the following:**

When a concrete batch is transported in a truck mixer or agitator and the batch is smaller than 60 percent of the rated capacity of the truck mixer or agitator, the following percentage of additional cementitious material at the same proportions as listed on the mix design shall be added to the batch:

**Section 380.3 E – Page 146 – Delete the paragraph below the table at the top of page 147 and replace with the following:**

The above provisions regarding additional cementitious material shall also apply to the mixing of small batches in central plants. Additional cementitious material will not be required when the small batch is mixed in a drum that is sufficiently coated with mortar to withstand the loss of cementitious material. Sufficient mortar coating, as determined by the Engineer, may include mortar coating the drum from a previously mixed batch during continuous mixing operations. Additional cementitious material will be required if more than 30 minutes has passed from the mixing of the previous batch, if the drum has been cleaned following the previous batch, or if the mortar coating the drum has been disturbed following the previous batch.

**Section 380.3 E.2 – Page 147 – Delete the second sentence of the second paragraph and replace with the following:**

When approved by the Engineer, additional water or cement may be added to the batch after completion of the original mixing, in which case the batch shall be mixed an additional 30 revolutions at mixing speed.

**Section 380.3 L – Page 149 – Add the following sentence to the end of this section:**

Epoxy coated dowel bars and tie bars shall meet the requirements of Section 480.3 A.

**Section 380.3 M.2 – Page 151 – Delete the first sentence of the last paragraph and replace with the following:**

The Contractor shall load test five percent of the first 500 tie bars that are drilled and epoxied in place.

**Section 380.3 M.3 – Page 151 – Add the following paragraph to this section:**

If a soft cut style saw is used, the soft cut shall remain approximately 1” (25mm) from the edges of the concrete slab to control spalling at the edge. Additionally if a soft cut is used, the Contractor shall complete the initial saw cut for the entire width and to the required depth before the end of the 72 hour curing period.

**Section 380.3 M.4 – Page 151 – Delete the first sentence of the fourth paragraph and replace with the following:**

If an uncontrolled crack develops within six feet (1.8 m) of the contraction joint, a minimum of six feet (1.8 m) of pavement removal and replacement will be required.

**Section 380.3 N.6 – Page 153 – Delete this section and replace with the following:**

6. **Final Finish:** Before the concrete has attained its initial set, the surface shall be given a final finish with a carpet drag drawn over the surface in a longitudinal direction. The drag shall be mounted on a bridge and shall be sized so that a strip of the carpet approximately two feet (600 mm) wide is in contact with the pavement surface while the drag is operated.

The condition of the drag shall be maintained so the resultant surface is of uniform appearance with corrugations approximately 1/16 inch (2 mm) in depth. Drags shall be maintained clean and free of encrusted mortar. Drags that cannot be cleaned shall be discarded and replaced.

The carpet shall meet the following requirements:

- Facing Material - Molded polyethylene pile face
- Blade Length - 7/8", ±1/8" (22 mm, ±3 mm)
- Total Fabric Weight - 70 oz. per square yard min.  
(2.37 kg per square meter min.)

The backing shall be of a strong, durable material, not subject to rot, which is adequately bonded to the facing.

Plain Jointed concrete pavement shall be either longitudinally or transversely tined as specified in the plans.

Continuously reinforced concrete pavement shall be longitudinally tined.

Tining depth and spacing shall be determined according to SD 418.

- a. Transverse Tining:** Immediately following the carpet drag, the surface of the concrete pavement shall be given a transverse metal-tine finish with a separate self-propelled mechanical device. The metal-tine finish shall provide a groove width of 1/8" and a groove depth of 6/32 inch (5 mm) ± 2/32 inch (2 mm). The spacing between the individual tines shall meet the following:

Inches (ten foot tining rake)

2-5/16, 2-15/16, 1-1/4, 2-7/16, 2-1/16, 1-1/4, 13/16, 1, 1-5/16, 1-1/8, 2-5/16  
 2-1/2, 2-7/8, 2-3/4, 1-1/8, 2-3/4, 2-1/8, 1-15/16, 13/16, 7/8, 2-5/8, 3-1/16  
 3-1/16, 7/8, 9/16, 9/16, 1-5/8, 2-3/8, 1, 1-1/4, 1-9/16, 2-15/16, 1-1/8  
 1-15/16, 2-3/16, 2, 2-13/16, 1, 2-11/16, 13/16, 1-7/8, 9/16, 2-5/16, 1-7/8  
 2-1/2, 1-5/16, 3-3/16, 1-3/8, 15/16, 7/8, 1-5/8, 9/16, 1-3/4, 2-7/8, 3  
 1-5/8, 1-5/8, 7/8, 9/16, 5/8, 2-13/16, 1-5/8, 2-7/16, 13/16, 1-1/4, 11/16  
 2-3/4, 2-5/16, 1-1/8

Millimeters (3 meter tining rake)

58, 74, 31, 62, 53, 32, 21, 26, 33, 28, 59  
 64, 73, 70, 29, 70, 54, 49, 20, 22, 67, 78  
 77, 23, 15, 15, 41, 60, 25, 32, 39, 75, 28  
 50, 55, 51, 72, 25, 69, 21, 47, 15, 59, 47  
 64, 34, 55, 35, 24, 22, 42, 14, 45, 73, 76  
 41, 41, 22, 15, 16, 71, 41, 62, 21, 31, 17  
 70, 58, 29

Successive passes of the tining shall not overlap.

Each location, where transverse joint saw cuts are to be made, shall be protected from tining by covering with a metal strip from four inches (100 mm) to six inches (150 mm) or by other methods that produce acceptable results.

Brooming may be used on irregular areas in lieu of the carpet drag and tine finish. The broom shall be drawn transversely across the pavement with adjacent strokes slightly overlapping.

Brooming shall be uniform in appearance and shall produce grooves 1/16 inch (2 mm) deep. Texturing shall be completed while the concrete surface can be broomed without being torn or unduly roughened by the operation.

The finished surface shall be free from rough and porous areas, irregularities, and depressions resulting from improper handling of the broom.

- b. Longitudinal Tining:** Immediately following the carpet drag, the surface of the concrete pavement shall be given a longitudinal metal-tine finish with a wire broom or comb attached to a separate self-propelled mechanical device.

Transverse joints shall not be protected from longitudinal tining, the tining shall be continuous across the joints.

The slab shall not be tined within 3 inches of the edge of the slab, centerline, or rumblestrip.

The longitudinal tining equipment shall have the ability to be raised and lowered, and shall have vertical and horizontal string line controls to ensure straight grooves that are parallel to the longitudinal joint.

The curing unit shall be separate from the tining unit when longitudinal tining is used unless the tining and curing can be accomplished simultaneously with the same piece of equipment at the specified rate to the satisfaction of the Engineer.

The tine bar shall have a single row of tines and shall provide a groove width of 1/8 inch (3 mm)  $\pm$  1/64 inch (0.4 mm) and a groove depth of 6/32 inch (5 mm)  $\pm$  2/32 inch (2 mm). The spacing between the individual tines shall be uniformly spaced at 3/4 inch (20 mm) intervals.

**Section 380.3 N.7 – Page 155 – Delete the first sentence of the first paragraph and replace with the following:**

After the final finish, and while the concrete is still plastic, the edges of the pavement along each side of the slab, and on each side of transverse construction joints, shall be worked with an approved tool and rounded to the specified radius.

**Section 380.3 O – Page 155 – Add the following two sentences to the beginning of this section:**

The pavement surface shall be checked for deviations using either a ten foot (3 meter) straightedge or a profilograph (when specified). When the use of a profilograph is specified, the ten foot (3 meter) straightedge check may also be required in locations determined by the Engineer.

**Section 380.3 O.2.c.2 – Page 157 – Delete the first paragraph and replace with the following:**

Areas excluded from profilograph testing shall be shoulders, transitions, area within 50 feet (15 m) of existing pavement and bridges, existing curb and gutter sections, ramps, pavements on horizontal curves having a centerline radius less than 1,000 feet (300 m) and the superelevation transitions. Pavement sections not subject to profilograph testing shall meet the 10 foot (3 m) straight edge test requirements in Section 380.3 O.1.

**Section 380.3 O.2.c.2 – Page 157 – Add the following to the end of the last paragraph:**

Grinding shall be day lighted to the outside edge of the pavement.

**Section 380.3 O.2.f.1 – Page 158 – Delete this section and replace with the following:**

- 1) Satisfactorily correct deficient area by grinding with equipment meeting the requirements of Section 380.3 O.2.c.2.

**Section 380.3 O.2.h – Page 158 – Delete the last paragraph of this section.**

**Section 380.3 R.2 – Page 161 – Delete the first sentence of the third paragraph and replace with the following:**

The sealant surface shall be tooled to produce a slightly concave surface below the pavement surface.

**Section 380.3 T – Page 162 – Add the following sentence after the first sentence in the second paragraph:**

Equipment operated on a previously constructed pavement that has attained a compressive strength of at least 3000 psi (21 Mpa) but less than 4000 psi (28 Mpa) shall be tracked type equipment.

**Section 390.2 B – Page 167 – Delete and replace with the following:**

**B. Concrete Patches:** Concrete patching material shall be one of the following:

1. A packaged, dry, rapid-hardening cementitious mortar conforming to the requirements of ASTM C 928, Type R-3 containing no chloride ions.
2. A packaged, dry, rapid-hardening concrete materials conforming to the requirements of ASTM C 928, Type R-3 containing no chloride ions.
3. A patching material meeting the following requirements:
  - a. **Cement:** Cement shall be Type III conforming to Section 750.
  - b. **Air Entraining Admixtures:** Air entraining admixtures shall conform to Section 751.
  - c. **Water:** Water shall conform to Section 790.
  - d. **Fine Aggregate:** Fine aggregate shall conform to Section 800.
  - e. **Coarse Aggregate:** Coarse aggregate shall be crushed quarry stone, size five, conforming to Section 820.
  - f. **Curing Compound:** Curing compound shall conform to Section 821.
  - g. **Proportioning:** Materials for concrete patches shall be mixed at the following proportions:

Fine Aggregate.....165 lbs./bag (75 kg/bag) cement  
 Coarse Aggregate.....165 lbs./bag (75 kg/bag) cement  
 Cement (min)..... 8.0 bags/c. y.(10.5 bags/cubic meter) concrete  
 Water (maximum).....5.0 gallon/bag (19 L/bag) cement

- h. **Air and Slump:** The slump and air shall conform to the following:

Air.....7% ± 2%  
 Slump.....1-1/2" (40 mm) maximum

**Section 391.2 A – Page 171 – Add the following paragraph to the end of this Section:**

Alternate design mixes for the grout may be submitted to the Engineer for approval.

**Section 392.2 A – Page 177 – Add the following paragraph to the end of this section:**

Alternate jacking slurry design mixes may be submitted to the Engineer for approval.

**Section 410.3 G.6 – Page 195 – Add the following section to the end of this section:**

- g. The turn-of-nut method for bolt tightening may be used when specified in the plans. When the turn-of-nut installation method is specified, hardened washers are not required except as specified in Section 410.3 G.6.d.

A sufficient number of bolts shall first be placed in the joint and snugged to insure that all faying surfaces are in firm contact, prior to tightening. Snug tight is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary wrench. Bolts shall be placed in any remaining holes and snugged tight as erection bolts or pins are removed. All bolts in the joint shall then be tightened the amount shown in Table 2 progressing systematically from the center most rigid part of the joint to its free edges. When tightening, the element not turned shall be held with a hand wrench to prevent rotation.

<b>Table 2 Nut Rotation from Snugged Condition<sup>a,b</sup></b>			
<b>Geometry of Outer Faces of Bolted Parts</b>			
Bolt Length Measured From Underside of Head to End of Bolt	Both Faces Normal to Bolt Axis	One Face Normal to Bolt Axis and Other Face Sloped Not More Than 1:20, Bevel	Both Faces Sloped Not More Than 1:20 From Normal to Bolt Axis, Bevel Washers Not

		Washer Not Used	Used
Up to and including 4 diameters	1/3 turn	1/2 turn	2/3 turn
Over 4 diameters but not exceeding 8 diameters	1/2 turn	2/3 turn	5/6 turn
Over 8 diameters but not exceeding 12 diameters <sup>c</sup>	2/3 turn	5/6 turn	1 turn

<sup>a</sup> Nut rotation is relative to bolt, regardless of the element (nut or bolt) being turned. For bolts installed by 1/2 turn and less, the tolerance should be plus or minus 30 degrees; for bolts installed by 2/3 turn and more, the tolerance should be plus or minus 45 degrees.

<sup>b</sup> Applicable only to connections in which all material within grip of the bolt is steel.

<sup>c</sup> No research work has been performed by the Research Council Riveted and Bolted Structural Joints to establish the turn-of-nut procedure when bolt lengths exceed 12 diameters. Therefore, the required rotation must be determined by actual tests in a suitable tension device simulating the actual conditions.

**Section 421.3 A – Page 213 – Delete the second sentence of the second paragraph and replace with the following:**

Backfill shall be compacted to 95% or greater of Maximum Dry Density in horizontal layers not to exceed six inches (150 mm) loose depth.

**Section 423.1 – Page 219 – Delete this section and replace with the following:**

**423.1 DESCRIPTION**

This work consists of the design, construction, and subsequent removal of all temporary works including, but not limited to; falsework, formwork, cofferdams, work berms and platforms, temporary traffic and stream diversions, and temporary retaining structures.

**Section 421.2 A – Page 213 – Delete the sieve analysis specification for the No. 200 (75 µm) sieve and replace with the following:**

No. 200 (75 µm) 0 - 18.0

**Section 421.2 B – Page 213 – Delete the sieve analysis specification for the No. 200 (75 µm) sieve and replace with the following:**

No. 200 (75 µm) 0 - 10.0

**Section 421.3 – Page 213 – Add the following to this section:**

**D. Extruded Insulation Board (Polystyrene):** No equipment will be allowed on the uncovered insulation board. The backfill covering the insulation board shall be spread and compacted in such a manner that the equipment used shall be operated on a minimum of 6 inches (150 mm) of backfill material at all times.

**Section 421.4 – Page 214 – Add the following to this section:**

**C. Extruded Insulation Board (Polystyrene):** Extruded insulation board (polystyrene) will be measured to the nearest square yard (square meter).

**Section 421.5 – Page 214 – Add the following to this section:**

**C. Extruded Insulation Board (Polystyrene):** Extruded insulation board (polystyrene) will be paid for at the contract unit price per square yard (square meter). Payment shall be full compensation for labor, equipment, and incidentals to furnish and install the extruded insulation board (polystyrene).

**Section 423.3 A – Page 219 – Add the following to the end of this section:**

All temporary works in streams or wetlands are required to be covered in the Corp of Engineers 404 Permit. At the time of the preconstruction meeting, the Contractor shall submit documentation for all temporary works for the purpose of complying with the 404 Permit requirements. The documentation shall include at a minimum:

1. A written description of the proposed temporary works including types of materials to be used, how the temporary works will be installed, removed, and what portion, if any, will remain in place after construction.
2. Details showing approximate size and location of the temporary works. Details shall include at a minimum, a Plan View and a Cross-Section View of the temporary works. Details shall provide sufficient dimensions such that the approximate size of the temporary works and location of the temporary works from a known point is shown.
3. Estimated quantities of all temporary fill material below the ordinary high water elevation. If the temporary fill is to be placed in a wetland, the estimated quantity shall be the amount of wetland loss, (in acres).

If during the course of construction there is a need for additional temporary works, the documentation shall be submitted to the Engineer at that time.

The Engineer will submit the documentation to the Corp of Engineers for approval. No construction of temporary works below the ordinary high water mark or in wetlands may begin until Corp of Engineer approval is attained by the Engineer.

**Section 423.3 B – Page 219 – Delete the first sentence and replace with the following two sentences:**

Falsework plans and design calculations for bridges shall be prepared by an Engineer registered in the State of South Dakota. Three (3) copies of the falsework plans and design calculations shall be submitted to the Bridge Construction Engineer for review at least 30 days prior to construction of falsework.

**Section 423.5 – Page 221 – Delete this section and replace with the following:**

**423.5 BASIS OF PAYMENT**

No payment will be made for temporary works. All costs involved in designing, constructing, and removing temporary works shall be incidental to the other contract items.

**Section 430.2 A. – Page 223 – Delete the last sentence of the second paragraph and replace with the following:**

The percentage of material passing a No. 200 (75µm) sieve shall not exceed 2.0 percent.

**Section 430.2 B – Page 223 – Delete this section and replace with the following:**

**B. Granular Bridge End Backfill:** The granular bridge end backfill material shall conform to Section 882.

**Section 430.3 C – Page 225 – Delete the second and third paragraphs and replace with the following:**

Granular bridge end backfill shall not be placed until at least 24 hours after completion of the deck pour. In addition, granular bridge end backfill shall not be placed until the abutments and sills, including wingwalls, have attained full design strength.

Granular bridge end backfill shall be placed in loose lifts not to exceed eight inches (200 mm) and compacted to 97% of maximum dry density. The moisture at the time of compaction shall be within  $\pm 4\%$  of optimum moisture. Maximum dry density and optimum moisture will be determined in accordance with SD 104.

**Section 430.3 C.1 through 6 – Page 225 and 226 – Delete and replace with the following:**

1. Each layer of granular bridge end backfill shall be placed in loose lifts not to exceed eight inches (200 mm). The placement and compaction of each layer must be inspected and approved by the Engineer prior to placement of the next layer.
2. Any equipment used to install the bridge end backfill over the geotextile fabric shall be operated in such a manner that the geotextile fabric is not damaged. To avoid damage to the geotextile fabric, the equipment used to place, spread, and compact the granular bridge end backfill over the geotextile fabric shall not be operated on less than six inches (150 mm) of material.

3. The geotextile fabric may be oriented in any direction. To minimize the horizontal deflection of the mechanically stabilized vertical face, it is extremely important to make sure that the geotextile fabric is taut and free of wrinkles during placement of the granular bridge end backfill.
4. Any geotextile fabric that is torn or punctured shall be repaired or replaced by the Contractor at no additional cost to the Department. The repair shall consist of a patch of the same type of geotextile fabric being placed over the ruptured area such that it overlaps the damaged area a minimum of 3 ft. (1 m) from any damaged edge. A sewn patch meeting the same requirements for seam strength as that of the fabric being repaired is allowed.
5. Seams that are perpendicular to face of the mechanically stabilized backfill may be constructed by overlapping the fabric a minimum of two feet (0.6 m). All other seams, as well as those in which the two foot (0.6 m) minimum overlap cannot be accomplished, shall be sewn. All seams shall be inspected by the Engineer and any deficient seams repaired by the Contractor prior to placement of the next layer of granular bridge end backfill. Geotextile fabric that is joined by sewn seams shall have strength properties at the seam equal to the specified strength requirements of the geotextile fabric. High strength polyester, polypropylene, or kevlar thread shall be used for sewn seams. Nylon threads shall not be used. The edges of the fabric shall be even and shall be completely penetrated by the stitch.
6. During periods of shipment and storage, the geotextile fabric shall be enclosed in a heavy duty opaque wrapping such that the fabric is protected from direct sunlight, ultraviolet rays, dirt or debris. The fabric shall not be subjected to temperatures greater than 140°F (60°C).

**Section 430.5 B – Page 227 – Delete the second sentence and replace with the following:**

Payment will be full compensation for all labor, equipment, materials, water, and all other items incidental to scarifying, reshaping and recompacting the area to be backfilled, furnishing and installing the polyethylene sheeting, drainage fabric, geotextile fabric, and furnishing, placing, and compacting the porous backfill and granular bridge end backfill to the limits shown on the plans.

**Section 450.2 – Page 231 – Add the following to this section:**

**F. High Density Polyethylene Pipe:** Section 990.

**Section 450.3 C – Page 231 – Delete and replace with the following:**

**C. Polyethylene Pipe Culverts:** Corrugated polyethylene pipe culverts and high density polyethylene pipe culverts shall be installed according to manufacturer instructions.

**Section 450.3 G – Page 232 – Delete and replace with the following:**

**G. Backfill Above Bedding Grade:** Moisture and density requirements for backfill shall be as specified in the plans and shall meet the requirements of Section 120. The backfill material shall be pre-moistened if necessary to obtain uniform moisture.

Selected embankment material shall be placed along the pipe in layers not exceeding six inches (150 mm) in depth and thoroughly compacted by mechanical compactors to the specified density before successive layers are placed. The width of the berms on each side of the pipe shall be twice as wide as the external diameter of the pipe or 12 feet (four meters), whichever is less. This method of backfilling shall be continued until the embankment is at least two feet (600 mm) over the top of the pipe.

In trench installations, backfill width shall be equal to trench width. The backfill shall be brought up evenly on both sides of the pipe for its full length. This method of backfilling shall be continued until the embankment is at least two feet (600 mm) over the top of the pipe.

**Section 460.3 A – Page 235 – Delete the first paragraph of this section and replace with the following:**

**Concrete Quality and Proportion:** The Contractor shall design and be responsible for the performance of all concrete mixes used in structures.

All mix designs and any modifications thereto, including changes in admixtures, shall be approved by the Concrete Engineer prior to use. Mix design data and test results shall be recorded on a DOT-24 and submitted to the Engineer.



The mix proportioning selected shall conform to the following requirements:

**Section 460.3 A – Page 236 – Delete the second sentence in Note 1 under Table 1.**

**Section 460.3 A – Page 235 – Delete the second sentence of the first paragraph on page 236 and replace with the following:**

The mix design shall be based upon obtaining an average concrete compressive strength 1200 psi above the specified minimum 28 day compressive strength.

**Section 460.3 A – Page 235 – Delete the last sentence of the second paragraph on page 236 and replace with the following:**

Trial batches shall be conducted in accordance with the American Concrete Institute Publication ACI 211.1, ACI 318, ASTM C192 and the following:

**Section 460.3 A – Page 235 – Delete the first paragraph on page 237 and replace with the following:**

Concrete mix designs previously used will be considered in compliance with the mix design requirements provided all of the following conditions are met:

**Section 460.3 A – Page 235 – Delete the second sentence of item 3 on page 237 and replace with the following:**

These test results and associated batch tickets shall be submitted to the Engineer.

**Section 460.3 A – Page 235 – Add the following to the list of items on page 237:**

4. All supporting information for the mix design including but not limited to, fresh concrete tests and material properties.

**Section 460.3 A – Page 235 – Delete the last two paragraphs of this section on page 237:**

**Section 460.3 B.2 – Page 237 – Delete the last paragraph of this section on page 238 and replace with the following:**

If the average compressive strength of the 28 day and the backup cylinder compressive strength is more than 500 psi (3.5 Mpa) below the specified 28 day compressive strength, the concrete represented by the cylinders shall be removed and replaced.

**Section 460.3 B.3 – Page 238 – Delete the last paragraph of this section and replace with the following:**

If the average core compressive strength is more than 500 psi (3.5 Mpa) below the specified 28 day compressive strength, the concrete represented by the cylinders shall be removed and replaced.

**Section 460.3 B.4 – Page 238 – Delete the last paragraph of this section on page 239 and replace with the following:**

If the average core compressive strength is more than 500 psi (3.5 Mpa) below the specified 28 day compressive strength, the concrete represented by the cylinders shall be removed and replaced.

**Section 460.3 B.5 – Page 239 – Delete the first sentence and replace with the following:**

If the Contractor utilizes the option to core as specified in Section 460.3 B.4, the Contractor shall arrange for an independent testing laboratory to perform the coring and compressive testing within 14 calendar days of notification of the failing compressive strength of the backup cylinder.

**Section 460.3 B.5 – Page 239 – Delete the last sentence of the second paragraph.**

**Section 460.3 B.5.a – Page 239 – Delete this section and replace with the following.**

- a. Include DOT project number, county, & PCN.

**Section 460.3 C.1 – Page 240 – Add the following to the list of items to be included on the printed ticket on page 241:**

W/C ratio

Aggregate Moistures (total moisture & absorption)

**Section 460.3 C.1 – Page 240 – Add the following after the last paragraph of this section on page 241:**

The W/C ratio shall be calculated using the following formula and rounded to the nearest 0.01:

$$W / C \text{ ratio} = \left[ \frac{\text{weight of free water} + \text{weight of batch water}}{\text{weight of cement} + \text{weight of supplementary cementitious material}} \right]$$

weight of free water = (% total moisture in aggregate - % absorption of aggregate) x weight of aggregate

weight of batch water = total weight of water added to the batch of concrete either at the plant or in the truck

The weight of free water shall be calculated for both the fine aggregate and the coarse aggregate.

**Section 460.3 D – Page 242 – Add the following to this section:**

6. The amount of batch water and aggregates added to the mix shall be adjusted accordingly using the results of the most recent two hour moisture tests. If automatic moisture sensing equipment is used, the Engineer may allow the use of the automatic moisture sensing results to make adjustments.

**Section 460.3 E – Page 243 – Delete the third paragraph and replace with the following:**

When a concrete batch is transported in a truck mixer or agitator and the batch is smaller than 60 percent of the rated capacity of the truck mixer or agitator, the following percentage of additional cementitious material at the same proportions as listed on the mix design shall be added to the batch:

**Section 460.3 E – Page 243 – Delete the paragraph below the table on the middle of page 243 and replace with the following:**

The above provisions regarding additional cementitious material shall also apply to the mixing of small batches in central plants. Additional cementitious material will not be required when the small batch is mixed in a drum that is sufficiently coated with mortar to withstand the loss of cementitious material. Sufficient mortar coating, as determined by the Engineer, may include mortar coating the drum from a previously mixed batch during continuous mixing operations. Additional cementitious material will be required if more than 30 minutes has passed from the mixing of the previous batch, if the drum has been cleaned following the previous batch, or if the mortar coating the drum has been disturbed following the previous batch.

**Section 460.3 K.1 – Page 247 – Delete and replace with the following:**

1. The coarse aggregate piles must be flushed with water for a minimum of 24 hours.

**Section 460.3 K – Page 248 – Delete the twelfth paragraph and replace with the following:**

Barrier curbs will not be allowed to be placed with slipform paving equipment.

**Section 460.3 M.4.c – Page 251 – Delete the second sentence of the first paragraph and replace with the following:**

Tining depth and spacing shall be measured according to SD 418. The metal-tine finish shall provide a groove width of 1/8" and a groove depth of 6/32 inch (5 mm) ±2/32 inch (3 mm).

**Section 465.2 A.3 – Page 265 – Add the following sentence to the end of the paragraph:**

Slump loss shall be tested in accordance with SD 423.

**Section 465.2 A.6 – Page 265 – Delete this section and replace with the following:**

6. The mix design shall establish a maximum water cementitious material ratio for the concrete mix (never to exceed 0.44)

The use of a water reducer will be required to achieve the above properties. Water reducers conforming to AASHTO M194 Type C (Accelerating) and Type E (Water-Reducing and Accelerating) will not be permitted.

**Section 480.3 C.1 – Page 280 – Delete the fifth paragraph and replace with the following:**

Welding of reinforcing steel shall not be allowed without written approval of the Bridge Construction Engineer. The request for approval shall list the bars to be welded, welding procedure, type of electrode, joint detail, and mill certificate of the reinforcing steel to be welded.

**Section 480.4 – Page 281 and 282 – Delete the English and Metric Bar Designation tables and replace with the following:**

**Bar Designation**

Size (English)	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	No. 10	No. 11	No. 14	No. 18
Weight (lb/ft)	0.376	0.668	1.043	1.502	2.044	2.670	3.400	4.303	5.313	7.65	13.60
Size (Metric)	10	13	16	19	22	25	29	32	36	43	57
Weight (kg/m)	0.560	0.994	1.552	2.235	3.042	3.973	5.060	6.404	7.907	11.38	20.24

**Section 550.3 A.2 – Page 303 – Delete the second sentence of the last paragraph and replace with the following:**

When backfilling extra depth holes in accordance with Section 550.3 C.1.f.2, a grout admixture shall be added to the grout mixture in accordance with the manufacturer’s recommendations.

**Section 550.3 C.1.b – Page 305 – Delete the third sentence of the first paragraph and replace with the following:**

After completion of the Type 1A removal, the Engineer will inspect the deck and mark remaining areas of unsound existing overlay.

**Section 550.3 C.1.c – Page 306 – Delete and replace with the following:**

- c. Type 1B Removal areas will be determined after Type 1A Removal (or Type 2A Removal if specified) has been accomplished. Type 1B Removal shall consist of removing delaminated or unsound concrete by chipping below the Type 1A Removal (or Type 2A Removal if specified) and extending down to the top of the top bar in the top mat of reinforcing steel. Concrete removed below the top of the top bar incidental to Type 1B Removal will be considered a part of the Type 1B Removal.

**Section 550.3 C.1.f.2 – Page 306 – Delete the first sentence and replace with the following:**

**Backfill of Extra Depth Holes:** When Type 1D removal is necessary, or when holes deeper than 4” (100mm) below the top of the scarified surface are encountered, they shall be backfilled as follows:

**Section 550.3 D.2 – Page 309 – Delete the fourth paragraph and replace with the following:**

Concrete placement will not be permitted after October 1 or before May 1 or when the air temperature is above 85°F (29°C) in the shade. It may be necessary to place concrete during evening or early morning hours and not during periods of low humidity and high wind to comply with this requirement.

**Section 550.3 E – Page 310 – Delete and replace with the following:**

- E. **Proportioning and Mixing Concrete Materials:** Proportioning and mixing shall conform to Section 460.3 F.

**Section 560.2 A – Page 317 – Add the following:**

- 6. **Cement:** Section 750. Type II cement shall be used, unless otherwise specified.

**Section 560.3 A – Page 317 – Add the following paragraph after the first paragraph:**

Precast concrete drop inlets shall conform to the requirements of Section 670.

**Section 560.3 A.1 – Page 317 – Delete and replace with the following:**

1. **Fabrication:** The Fabricator shall notify the Area Engineer prior to the fabrication of precast and prestressed concrete items.

**Section 560.3 A.2 – Page 317 – Delete the last sentence of the first paragraph and replace with the following:**

When a plant has been in operation and satisfactorily producing material, the Contractor will not be required to submit a concrete mix design for precast concrete, unless changes have been made to the pre-approved mix design or the material used in the mix design. Concrete mix designs shall be submitted for each project on all prestressed concrete products.

**Section 560.3 B.1 – Page 319 – Delete the second sentence of the fifth paragraph and replace with the following:**

A checked design includes the design calculations and check design calculations performed by an independent Engineer registered in the State of South Dakota.

**Section 560.3 B.2.b – Page 321 – Delete the second paragraph and replace with the following:**

Acceptance of the precast units shall be in accordance with Section 460.3 B except that the fabricator shall be responsible for the sampling, preparing, and properly curing of all concrete cylinders for concrete compressive strength in accordance with the Materials Manual. The precast units will be accepted when the minimum design concrete compressive strength requirements have been met. Accepted precast units represented by that test group of cylinders may be delivered to the project and will not require the 28 day cylinder test.

**Section 600.2 A.17 – Page 333 – Add the following sentence at the end of the paragraph:**

The concrete pad must be securely mounted and solidly supported under the laboratory to minimize vibration while operating the Marshall compactor.

**Section 600.3 – Page 336 – Delete the fourth and fifth sentence and replace with the following:**

On projects that a Type III lab is required, the Engineer may allow a Type I or II lab to be supplied until such a time the Engineer determines the Type III lab is required. If the Engineer allows a temporary Type I or II lab to be furnished, no additional payment for that lab will be made.

**Section 605.3 C – Page 339 – Delete the third sentence of the first paragraph and replace with the following:**

If fly ash is used, the minimum amount of cement to be replaced is 15 percent and the maximum amount is 20 percent at a 1:1 ratio by weight.

**Section 630.4 A – Page 355 – Delete this section and replace with the following:**

- A. **Beam Guardrail:** Each class and type will be measured to the nearest 0.1 foot (0.1 meter) along the centerline of the rail. The length in feet (meters) shall be the overall length center to center of end posts or to connections with bridges.

**Section 630.4 C – Page 355 – Delete this section and replace with the following:**

- C. **Remove Beam Guardrail:** Remove Beam Guardrail will be measured to the nearest 0.1 foot (0.1 meter) along the centerline of the rail.

**Section 630.5 A – Page 355 – Delete this section and replace with the following:**

- A. **Beam Guardrail:** Beam guardrail will be paid for at the contract unit price per 0.1 foot (0.1 meter) for each class and type installed. Payment will be full compensation for labor, materials, equipment, and incidentals required.

**Section 630.5 C – Page 356 – Delete this section and replace with the following:**

- C. **Remove Beam Guardrail:** Remove Beam Guardrail will be paid for at the contract unit price per 0.1 foot (0.1 meter). Payment will be full compensation for the backfill of holes and the removal of the guardrail including end terminals, beam guardrail, posts, blocks, and hardware from the project limits.

**Section 632.3 H.2.c – Page 361 – Delete and replace with the following:**

- c. Anchor bolts shall be provided with leveling nuts, top nuts, and jam nuts. Anchor bolts shall be tightened in accordance with Section 635.3 F.

**Section 633.3 D – Page 368 – In the grooving tolerance tables, replace “Depth of Groove” with the following:**

	<b>(English)</b>	
Depth of Groove	80 mils	+ 10 mils
	<b>(Metric)</b>	
Depth of Groove	2.032 mm	+ 0.25 mm

**Section 634.3 A – Page 372 – Delete the first sentence of the fourth paragraph and replace with the following:**

All workers within the right of way who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel intended to provide conspicuity during both daytime and nighttime usage, and meeting the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled “American National Standard for High-Visibility Safety Apparel and Headwear”.

**Section 634.3 A – Page 372 – Delete the first sentence of the fifth paragraph.**

**Section 634.3 C – Page 374 – Add the following paragraph after the first paragraph:**

For 2 lane roadways with average daily traffic volumes of 2500 or less, no passing zones may be identified using DO NOT PASS, PASS WITH CARE, and NO PASSING ZONE signs rather than pavement markings. The DO NOT PASS and NO PASSING ZONE signs shall be used to mark the beginning of each no passing zone, and the PASS WITH CARE signs to mark the end of each zone. These may be utilized in place of the pavement markings normally used to identify no passing zones for no longer than 2 weeks. The placement of the dashed centerline marking and these signs shall be required prior to nightfall.

**Section 635.3 C.3 – Page 380 – Add the following sentence at the end of the first paragraph:**

The contractor shall not use a machine requiring flowing water for installation of conduit under streets or roadways unless approved by the Engineer.

**Section 635.3 F – Page 381 – Delete and replace with the following:**

- F. **Anchor Bolts:** Anchor bolts shall be installed in accordance with the following requirements.
  - 1. **General:** Anchor bolts shall be provided with leveling nuts and top nuts. Anchor bolts for light towers shall be provided with leveling nuts, top nuts, and jam nuts.
  - 2. **Anchor Bolt Installation:** A steel template shall be used to accurately locate and hold the anchor bolts plumb and in proper alignment. This template shall be in place during placement of the concrete base and shall remain in place a minimum of 24 hours after the concrete placement has been completed. Out of position anchor bolts and anchor bolts greater than 1:40 out-of-plumb are cause for rejection of the base. Bending of the anchor bolts to straighten or move into position, or alterations of the pole base plate will not be permitted.
  - 3. **Anchor Bolt Tightening:**
    - a. All leveling nuts (bottom nuts) shall be brought to full bearing on the bottom of the base plate. The bottom of the leveling nuts must be kept as close to the concrete base as practical, and shall not be more than one inch above the top of the concrete base. Leveling nuts must be threaded onto the anchor bolt to provide at least ¼ inch (6 mm) projection of the bolt above the top nut or jam nut if required when in its tightened position.
    - b. A softened beeswax or equivalent shall be applied to the top nut bearing face and top nut internal threads prior to placement on the anchor bolt. All top nuts shall be tightened to a snug tight condition. Snug tight

is defined as the tightness attained by the full effort of a person using a wrench with a length equal to 14 times the diameter of the anchor bolt, except the minimum length shall be 18 inches. The use of adjustable wrenches will not be allowed. The full effort required to achieve a snug tight condition, shall be applied as close to the end of the wrench as possible. Pull firmly by leaning back and using full body weight (brace feet to prevent slipping) on the end of the wrench until the nut stops rotating. This snug tightening shall be accomplished in a minimum of two separate passes of tightening. The sequence of tightening in each pass shall be such that the opposite side nut, to the extent possible, shall be subsequently tightened until all the nuts in that pass have been snugged.

Snug tightness of both the top and leveling nuts shall be checked in the presence of Department personnel after the Contractor has completed nut snugging as described above, but prior to final tightening. Snug tightness of the nuts (top and leveling) shall be checked by applying a torque in a range from 20% to 30% of the verification torque. See Table 1 for verification and snug tight torque values.

**Table 1**

**Anchor Bolt Tightening**

<b>Anchor Bolt Diameter (in)</b>	<b>Anchor Bolt Stress Area (sq in)</b>	<b>Yield Strength (ksi)</b>	<b>Minimum Tensile Strength (ksi)</b>	<b>Verification Torque (ft-lbs)</b>	<b>30% Snug Tight Torque (ft-lbs)</b>	<b>20% Snug Tight Torque (ft-lbs)</b>
1.00	0.61	36.0	58.0	177	53	35
1.25	0.97	36.0	58.0	351	105	70
1.50	1.41	36.0	58.0	613	184	123
1.75	1.90	36.0	58.0	964	289	193
2.00	2.50	36.0	58.0	1449	435	290
2.25	3.25	36.0	58.0	2120	636	424
2.50	4.00	36.0	58.0	2899	870	580
2.75	4.93	36.0	58.0	3930	1179	786
3.00	5.97	36.0	58.0	5192	1558	1038
1.00	0.61	55.0	75.0	274	82	55
1.25	0.97	55.0	75.0	545	163	109
1.50	1.41	55.0	75.0	951	285	190
1.75	1.90	55.0	75.0	1496	449	299
2.00	2.50	55.0	75.0	2249	675	450
2.25	3.25	55.0	75.0	3289	987	658
2.50	4.00	55.0	75.0	4498	1349	900
2.75	4.93	55.0	75.0	6098	1830	1220
3.00	5.97	55.0	75.0	8056	2417	1611
1.00	0.61	75.0	100.0	366	110	73
1.25	0.97	75.0	100.0	726	218	145
1.50	1.41	75.0	100.0	1268	381	254
1.75	1.90	75.0	100.0	1994	598	399
2.00	2.50	75.0	100.0	2999	900	600
2.25	3.25	75.0	100.0	4386	1316	877
2.50	4.00	75.0	100.0	5998	1799	1200
2.75	4.93	75.0	100.0	8131	2439	1626
3.00	5.97	75.0	100.0	10742	3223	2148
1.00	0.61	105.0	125.0	457	137	91
1.25	0.97	105.0	125.0	908	272	182
1.50	1.41	105.0	125.0	1586	476	317
1.75	1.90	105.0	125.0	2493	748	499
2.00	2.50	105.0	125.0	3749	1125	750
2.25	3.25	105.0	125.0	5482	1645	1096
2.50	4.00	105.0	125.0	7497	2249	1499
2.75	4.93	105.0	125.0	10164	3049	2033

3.00	5.97	105.0	125.0	13427	4028	2685
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- c. At this point, the top nut and leveling nut must be in full bearing on the base plate. If any gap exists between either nut (top or leveling) and the base plate, a beveled washer shall be added between the nut washer and the base plate to eliminate the gap. The beveled washer shall be stainless steel Type 304, the same diameter as the hardened washer, and beveled as required to eliminate the gap between the nut and the base plate. All nuts shall be retightened according to steps (a) and (b) above if beveled washers are added. All costs required to remove and re-erect the structure to install beveled stainless steel washers shall be at the Contractor's expense.
- d. Using a hydraulic wrench rotate all top nuts as indicated in Table 2. The additional turn of the nuts shall be accomplished by tightening all the nuts in two separate passes of equal incremental turns (i.e., for 1/3 turn use 1/6 turn each pass). The sequence of nut tightening in each pass shall be such that the opposite side nut, to the extent possible, shall be subsequently tightened until all the nuts in that pass have been turned. There shall be no rotation of the leveling nut during top nut tightening.

In lieu of a hydraulic wrench, torque wrenches and multipliers may be used to achieve the desired nut rotations and tightness.

- e. Tightness of the nuts shall be checked in the presence of Department personnel. Tightness of the nuts shall be checked within a minimum of 48 hours and a maximum of 96 hours after the nuts have been rotated as indicated in Section 635.3 F.3.d above. Tightness of the top nuts shall be checked by applying the verification torque to the nut. See Table 1 for verification torque.

**Table 2**

**Nut Rotation for Turn-Of-Nut Pretensioning**

Anchor Rod Diameter (in)*	Nut Rotation from Snug-Tight Condition a, b	
	F1554 Grade 36, A307	F1554 Grade 55 and 105, A449
< 1 ½	1/6 Turn	1/3 Turn
≥ 1 ½	1/12 Turn	1/6 Turn
a. Nut rotation is relative to anchor rod. The tolerance is plus 20 degrees		
b. Applicable only to double-nut-movement joints.		

Bottom leveling nuts shall be in contact with the base prior to applying the torque. An inability to achieve the verification torque indicates that the threads have stripped and the anchor bolt must be replaced. All costs for replacing anchor bolts shall be at the Contractor's expense.

- f. Install jam nut after verification torque has been applied to top nut. Lubricate threads of jam nut with beeswax or equivalent and tighten to a torque of 100 ft-lb (approximated without the use of a torque wrench).

**Section 635.3 H – Page 382 – Delete the first paragraph and replace with the following:**

Traffic signal conductors shall be continuous from the controller cabinets to the pole bases. Splicing of conductors will not be allowed in the junction boxes.

**Section 635.3 Q.3 – Page 384 – Delete and replace with the following:**

- 3. **Preformed Loops:** Each set of loop wires shall be tagged to identify loop. If installation of the loop is for future use the loop wires in the same lane shall be taped together. If installation is on a signal project, tagging shall be done and wires connected in series.

In new roadways, the preformed loops and lead-in conduits shall be placed in the base course, with the top of the conduit flush with the top of the base, and then covered with hot mix asphalt or Portland cement concrete pavement. Preformed loops and lead-in conduits shall be protected from damage prior to and during pavement placement.

In new reinforced concrete structure decks, the preformed loops shall be secured to the top of the uppermost layer of reinforcing steel using nylon wire ties. The loop shall be held parallel to the structure deck by using PVC or polypropylene spacers where necessary. Conduit for lead-in conductors shall be placed below the upper mat of reinforcing steel.

In existing pavement, the preformed loops shall be placed in a saw slot, 1-1/4 inches minimum width, cut into the existing pavement. The top of the conduit shall be 2 inches, minimum, below the top of existing surface. Sawed Slots shall be filled with an approved loop sealant.

On asphalt or concrete resurfacing projects, the preformed loops shall be placed in a saw slot, 1-1/4 inches minimum width, cut into the existing pavement. The top of the conduit shall be 2 inches, minimum, below the top of existing surface after any required surface removal is completed and prior to the placing of the new surface. Sawed Slots shall be filled with an approved loop sealant.

**Section 635.3 R.3 – Page 384 – Delete the first sentence in the first paragraph and replace with the following:**

All circular red, red arrow, circular yellow, yellow arrow, circular green, green arrow, and pedestrian indications shall be light emitting diode (LED) signal modules.

**Section 635.5 E – Page 386 – Delete and replace with the following:**

**D. Anchor Bolts:** Cost for anchor bolts shall be included in the contract unit price for the concrete for which they are incorporated with.

**Section 651.2 C – Page 391 – Delete the last sentence of this section and replace with the following:**

Not more than 25.0 percent by weight shall pass a No. 200 (75µm) sieve.

**Section 670.3 – Page 393 – Delete and replace with the following:**

**A. General Requirements:** Concrete for drop inlets shall be proportioned, mixed, hauled, and placed in accordance with Section 462.

When the foundation for a drop inlet is in new embankment, the embankment shall be constructed to an elevation at least one foot (300 mm) above the footing before the foundation for the drop inlet is prepared. The foundation shall be compacted as specified for the adjacent embankment.

Castings shall be set in full mortar beds or secured as specified. Castings shall be set accurately to the correct elevation so subsequent adjustment will not be necessary.

Inlet and outlet pipe connections shall be of the same size and kind and shall meet the same requirements as the pipe they connect. Pipe sections shall be flush on the inside of the structure wall and project outside sufficiently for proper connection with the next pipe section. Masonry shall fit neatly and tightly around the pipe. Grouting of the pipe connection may be required as directed by the Engineer if voids exist after form removal.

Drop inlets shall be either cast in place or precast. Precast drop inlets shall be defined as those drop inlets cast outside of the project limits. Drop inlets cast within the project limits will be considered cast in place.

**B. Cast in Place Drop Inlets:** The foundation excavated for drop inlets shall be thoroughly moistened immediately prior to placing concrete.

Steel reinforcement shall be placed in accordance with Section 480.

The finished surface of the concrete shall present a neat and smooth appearance. Concrete shall be protected and cured in accordance with Section 460.3, except the minimum curing time shall be 72 hours.

Upon completion and curing of the unit, the sheeting, bracing, forms, and falsework shall be removed and the excavation backfilled. The unit shall not be backfilled until the completion of the 72 hour curing period, or until the concrete reaches a minimum compressive strength of 3000 psi (21 MPa). Backfill shall be placed in layers not



exceeding six inches (150 mm) thick and compacted to the same degree as specified for the adjacent embankment. Installations shall be finished completed and left in a neat appearing condition.

**C. Precast Drop Inlets:** Precast drop inlets shall conform to the following requirements:

- 1. Notification:** The Contractor shall notify the Engineer 24 hours in advance of all concrete pours for inspection and observation of Contractor testing:
- 2. Design:** Precast drop inlets shall conform to the configurations of the standard plates. Variations from the standard plates may be accepted provided the AASHTO materials, design, fabrication specifications, and the requirements of this section are complied with.

Precast drop inlets shall be designed to specified load conditions. The Design Engineer of the drop inlets must be registered in the State of South Dakota. The design shall conform to the AASHTO design requirements for the depth of fill, including surfacing, etc., as well as live load or specified loading.

The Contractor shall furnish a checked design with the shop drawings. A checked design shall include the design calculations, and check design calculations performed by an independent Engineer registered in the State of South Dakota.

- 3. Shop Drawings:** Fifteen days prior to fabrication, the Contractor shall furnish shop drawings for Department review. The shop drawings shall consist of fabrication details including reinforcing steel and spacer placement and configurations, total quantities for the complete item, and all information for fabrication and erection.
- 4. Forms:** The forms shall be designed to withstand the fluid pressure of the concrete and the added forces due to vibration and impact without distortion. The forms shall be mortar tight and free from warp.

The form surface area in contact with the concrete shall be treated with an approved form oil or wax before the form is set in position. The forms shall be thoroughly cleaned of all other substances.

- 5. Concrete Cure:** The concrete shall be cured by low pressure steam, radiant heat, or as specified in Section 460.3 N. When curing in accordance with Section 460.3 N., the concrete temperature requirements of Section 460.3 O. shall apply.

Low pressure steam or radiant heat curing shall be done under an enclosure to contain the live steam or the heat and prevent heat and moisture loss. The concrete shall be allowed to attain initial set before application of the steam or heat. The initial application of the steam or heat shall be three hours after the final placement of concrete to allow the initial set to occur. When retarders are used, the waiting period before application of the steam or radiant heat shall be five hours. When the time of initial set is determined by ASTM C 403, the time limits described above may be waived.

During the waiting period, the minimum temperature within the curing chamber shall not be less than 50° F (10° C) and live steam or radiant heat may be used to maintain the curing chamber between 50° F (10° C) and 80° F (27° C). During the waiting period the concrete shall be kept moist.

Application of live steam shall not be directed on the concrete forms causing localized high temperatures. Radiant heat may be applied by pipes circulating steam, hot oil, hot water, or by electric heating elements. Moisture loss shall be minimized by covering exposed concrete surfaces with a plastic sheeting or by applying an approved liquid membrane curing compound to exposed concrete surfaces. The top surface of concrete members for use in composite construction shall be free of membrane curing compound residue unless suitable mechanical means for full bond development are provided.

During the initial application of live steam or radiant heat, the concrete temperature shall increase at an average rate not exceeding 40° F (22° C) per hour until the curing temperature is reached. The maximum concrete temperature shall not exceed 160° F (71° C). The maximum temperature shall be held until the concrete has reached the desired strength. After discontinuing the steam or radiant heat application, the temperature of the concrete shall decrease at a rate not to exceed 40° F (22° C) per hour until the concrete temperature is within 20° F (11° C) of the ambient air temperature. The Contractor will not be required to monitor this cool down temperature when the ambient air temperature is 20° F (11° C) or above.

The test cylinders shall be cured with the unit, or in a similar manner (similar curing method and concrete curing temperature, as approved by the Concrete Engineer) as the unit, until minimum compressive strength has been obtained.

- 6. Surface Finish and Patching:** If a precast or prestressed item shows stone pockets, honeycomb, delamination or other defects which may be detrimental to the structural capacity of the item, it will be subject to rejection at the discretion of the Engineer. Minor surface irregularities or cavities, which do not impair the service of the item, and which are satisfactorily repaired will not constitute cause for rejection. Repairs shall not be made until the Engineer has inspected the extent of the irregularities and has determined whether the item can be satisfactorily repaired. If the item is deemed to be repairable, the repair method and procedures shall be agreed upon by the Department and fabricator prior to the work commencing.

Depressions resulting from the removal of metal ties or other causes shall be carefully poointed with a mortar of sand and cement in the proportions, which are similar to the specific class of concrete in the unit. A sack rub finish is required on prestressed beams except for the bottom of the bottom flange and the top of the top flange. A sack rub finish is also required on sloped surfaces of box culvert end sections.

- 7. Fresh Concrete Testing:** The Contractor shall be responsible for performing all fresh concrete testing in accordance with the materials manual Materials Manual. Tests shall be documented on a DOT-54 form and submitted to the Engineer.
- 8. Concrete Compressive Strength:** The Contractor shall make a minimum of one group of test cylinders for each class of concrete for each day's production, not to exceed 150 cubic yard (125 cubic meters) per group of cylinders.

At a minimum, a group of test cylinders shall consist of the following:

- a. Two test cylinders are required for the 28 day compression test.
- b. Two additional cylinders will be required for determining concrete strength, when the Contractor desires to make delivery and obtain acceptance by the Department prior to the 28 day compression test.

Acceptance of the precast units shall be in accordance with Section 460.3 B. The precast units will be accepted when the minimum design concrete compressive strength requirements have been met. Accepted precast units represented by that test group of cylinders may be delivered to the project and will not require the 28 day cylinder test.

The Engineer will be responsible for breaking of all concrete cylinders for concrete compressive strength in accordance with the Materials Manual.

**Section 670.5 – Page 394 – Add the following paragraph after the first paragraph:**

Unless otherwise specified in the plans the cost for removal of existing pipe, if necessary, to facilitate the installation of new drop inlets shall be incidental to the associated drop inlet contract unit prices.

**Section 671.5 – Page 397 – Add the following paragraph to this section:**

Unless otherwise specified in the plans the cost for removal of existing pipe, if necessary, to facilitate the installation of new manholes shall be incidental to the associated manhole contract unit prices.

**Section 680.2 A – Page 399 – Delete the last sentence of the second paragraph and replace with the following:**

The percentage of material passing a No. 200 (75µm) sieve shall not exceed 2.0 percent.

**Section 720.4 – Page 405 – Delete this section and replace with the following:**

- A. Bank and Channel Protection Gabions:** Bank and channel protection gabions will be measured to the nearest 0.1 cubic yard (0.1 cubic meter). If a substitution is made, the dimensions of the bank and channel protection installed shall be equal to or greater than the dimensions specified. Payment will be based on plans quantity, unless changes are ordered in writing by the Engineer.

**B. Drainage Fabric:** Drainage fabric will be measured to the nearest square yard (square meter). The lap at joints will not be included in the measurement.

**Section 720.5 – Page 405 – Delete this section and replace with the following:**

**A. Bank and Channel Protection Gabions:** Bank and channel protection gabions will be paid for at the contract unit price per cubic yard (cubic meter). Payment will be full compensation for materials, equipment, labor, excavating, shaping and incidentals required.

**B. Drainage Fabric:** Drainage fabric will be paid for at the contract unit price per square yard (square meter). Payment will be full compensation for furnishing and installing the drainage fabric as specified. Payment will be for plan quantity unless changes are ordered in writing.

**Section 730.2 C – Page 407 – Delete the fourth sentence and replace with the following:**

If the seed is not planted within the 9 month period, the Contractor shall have the seed retested for germination, as described above, and a new certified test report shall be furnished prior to starting seeding operations.

**Section 734.3 – Page 423 – Add the following paragraph before the first paragraph:**

The Contractor shall designate an employee as Erosion Control Supervisor whose responsibility is the construction and maintenance of erosion and sediment control. This person shall be available to be reached by phone 24 hours a day, 7 days a week, and must be able to respond to emergency situations at the job site within 12 hours. The person so designated must have training and be certified by the South Dakota Department of Transportation in the area of erosion and sediment control. The name, phone number, and location of the person shall be provided to the Department at the preconstruction meeting.

**Section 734.3 B.2 – Page 424 – Delete the second sentence and replace with the following:**

The muck will be removed when the surface of the muck is at approximately one-third the height of the silt fence.

**Section 750 – Page 431 – Add the following after the second paragraph:**

In addition to the certification requirement specified in SD 416, when limestone is used, the manufacturer shall state in writing the amount thereof, the percentage of Calcium Carbonate in the limestone, and shall supply comparative test data on chemical and physical properties of the cement with and without the limestone. The comparative tests do not supersede the normal testing to confirm that the cement meets chemical and physical requirements.

**Section 800.2 D – Page 436 – Add the following sentence to the end of the fourth paragraph:**

Fine aggregate with a 14 day expansion value of 0.400 or greater shall not be used.

**Section 800.2 D – Page 436 – Add the following sentence to the end of the last paragraph:**

The expansion value of the blended sources will be used to determine the type of cement required.

**Section 800.2 F – Page 437 – Delete the last three sentences of the first paragraph and replace with the following:**

If the fineness modulus falls outside this limit the Concrete Engineer shall be notified. A new or adjusted mix design may be provided or approved. The uniformity of grading requirements do not apply to fine aggregate for Low slump Dense Concrete and Class M (I) concrete.

**Section 800.2 F – Page 437 – Delete the first sentence of the second paragraph and replace with the following:**

For determining the FM deviation from the design mix FM, the average of the five most recent FM test shall be used.

**Section 800.2 F – Page 437 – Delete the first sentence of the last paragraph and replace with the following:**

Additionally for Portland Cement Concrete Paving conforming to Section 380; the FM of the fine aggregate, as established by the mix design, will be from 2.40 to 3.10 (wide band).



**TABLE 1**

REQUIREMENTS	CLASS D		CLASS E		CLASS G		CLASS S	
	TYPE 1	TYPE 2	TYPE 1	TYPE 2	TYPE 1	TYPE 2	TYPE 1	TYPE 2
SIEVE	PERCENT PASSING							
1" (25.0 mm)	100		100		100			
3/4" (19.0 mm)	97-100	100	97-100	100	97-100	100		
1/2" (12.5 mm)	75-95	97-100	75-95	97-100	75-95	97-100	86-100	100
3/8" (9.50 mm)							66-80	80-100
No. 4 (4.75 mm)	45-75	60-80	45-75	60-80	45-75	60-80	24-34	24-45
No. 8 (2.36 mm)	30-55	40-60	30-55	40-60	30-55	40-60	10-20	10-22
No. 16 (1.18 mm)	20-45	25-50	20-45	25-50	20-45	25-50		
No. 40 (425 µm)	10-30	15-35	10-30	15-35	10-30	15-35		
No. 200 (75 µm)	3.0-7.0	4.0-8.0	3.0-7.0	4.0-8.0	3.0-7.0	4.0-8.0	4.0-8.0	2.0-5.0
Processing Required	Crushed		Crushed		Crushed		Crushed	
Liquid Limit (max)	25		25		25		25	
Plasticity Index, (max)	3		Non-Plastic		Non-Plastic		Non-Plastic	
L.A. Abra. Loss. (max)	45%		40%		35%		40%	
Sodium Sulfate (Soundness) (Max.)								
+4 (4.75 mm) sieve	15%		15%		12%		12%	
-4 (4.75 mm) sieve	15%		15%		12%		12%	
Lightweight Particles (Max.)								
+4 (4.75 mm) sieve	4.5%		3.0%		1.0%		1.0%	
-4 (4.75 mm) sieve	4.5%		3.0%		1.0%		1.0%	
Crushed Particles (Min.)								
+4 (4.75 mm) sieve	50% 1-FF		70% 2-FF		90% 2-FF		90% 2-FF	
* - 4 Manufactured Fines	NA		20% Min.		70% Min.		95% Min.	

\* - Manufactured fines shall be manufactured solely from material retained on the 3/4 inch (19mm) sieve, unless the aggregate material is produced from a ledge rock source.

**Section 880.2 B.1 – Page 456 – Delete the second sentence and replace with the following:**

The material shall be fine enough that when pulverized for testing, 90 percent by dry weight will pass a No. 40 (425 µm) sieve and 60.0 percent by dry weight will pass a No. 200 (75µm) sieve.

**Section 880.2 B.2 – Page 456 – Delete the sieve analysis specification for the No. 200 (75 µm) sieve and replace with the following:**

Passing a No. 200 (75 µm) sieve ..... 65.0-100%

**Section 882.2 – Page 459 – Delete Table 1 and replace with the following:**

Table 1

REQUIREMENT	Subbase	Gravel Cushion	Granular Bridge End Backfill	Aggregate Base Course	Limestone Ledge Rock		Gravel Surfacing
					Base Course	Gravel Cushion	
SIEVE	PERCENT PASSING						
2" (50 mm)	100						
1" (25.0 mm)	70-100		100	100	100		
3/4" (19.0 mm)		100	80-100	80-100	80-100	100	100
½" (12.5 mm)			68-91	68-91	68-90		
No. 4 (4.75 mm)	30-70	50-75	42-70	46-70	42-70	46-70	50-78
No. 8 (2.36 mm)	22-62	38-64	29-58	34-58	29-53	29-53	37-67
No. 40 (425 µm)	10-35	15-35	10-35	13-35	10-28	10-28	13-35
No. 200 (75 µm)	0.0-15.0	3.0-12.0	0.0-5.0	3.0-12.0	3.0-12.0	3.0-12.0	4.0-15.0
Liquid Limit Max		25	25	25	25	25	
Plasticity Index	0-6	0-6	0-6	0-6	0-3	0-3	4-12
L.A. Abra. Loss, max.	50	40	40	40	40	40	40
Foot Notes		2	1,2	1,2			
Processing Required	crushed	crushed	crushed	crushed	crushed	crushed	crushed

**Section 890.2 G – Page 465 – In the table, under TESTS ON RESIDUE FROM DISTILLATION TESTS, add the following after Elastic Recovery @ 50°F (10°C):**

(see Note 4)

**Section 890.2 G – Page 465 – Add the following after Note 3:**

Note 4: The Elastic Recovery test shall be in accordance with AASHTO T301, except that the residue will be obtained by distillation, not oven evaporation. The distillation temperature shall be as recommended by the emulsion manufacturer.

**Section 972.2 B – Page 479 – Delete the second paragraph and replace with the following:**

For bolts that are 1" (M24) (incl.) in diameter and less, the maximum hardness for AASHTO M164 (ASTM A325) bolts shall be 33 Rc.

**Section 972.2 C – Page 483 – Add the following paragraph before the second to last paragraph:**

Jam nuts shall conform to ASTM A563 Grade A.

**Section 972.2 C – Page 483 – Delete the first sentence of the last paragraph and replace with the following:**

Bolts and nuts shall be hot dipped galvanized in accordance with ASTM F2329 or mechanically galvanized in accordance with ASTM B695. Washers shall be hot dipped galvanized in accordance with ASTM F2329 or mechanically galvanized in accordance with ASTM B695.

**Section 972.2 D – Page 484 – Delete the fourth note under the table as denoted by “\*\*\*\*” and replace with the following:**

\*\*\*\* Anchor bolts conforming to ASTM F1554 Grade 55 (380) shall satisfy Supplemental Requirement S4. Anchor bolts conforming to ASTM F1554 Grade 105 (725) shall satisfy Supplemental Requirement S5.

**Section 980.1 A.1 – Page 485 – Delete this section and replace with the following:**

**1. Quantitative Requirements:** The finished paint shall meet the following quantitative requirements:

	<u>WHITE</u>	<u>YELLOW</u>
<u>Lead</u> , parts per million max. ASTM D 3335 or X-ray fluorescence	100	100
<u>Pigment</u> , percent by weight	60.0 - 62.5	58.5 – 61.0
<u>Pigment</u> , percent by weight; when tested in accordance with ASTM D 3723 (See Note 1)	60.0 - 62.5	56.1 - 58.6
Note 1: The residual extracted pigment upon analysis shall conform to the following quantitative compositional requirements when tested in accordance with ASTM D 1394 or ASTM D 4764.		
Titanium Dioxide ASTM D 476 Type II Rutile 92% min. TiO <sub>2</sub> tested in accordance with ASTM D 1394 or ASTM D 4764	1.00 lb/gal min.	0.20 lb/gal min.
<u>Total Solids</u> , percent by weight; min. when tested in accordance with ASTM D 3723	77.0	76.1
<u>Non-volatile Vehicle</u> , percent by weight vehicle; min. when tested in accordance with FTMS 141c (Method 4051.1)	42.5	42.5
<u>Consistency</u> . Krebs-Stormer Shearing rate 200 r.p.m. Grams	190 to 300	190 to 300
Equivalent K.U. when tested in accordance with ASTM D 562 (See Note 2)	80 to 95	80 to 95
Note 2: The consistency of the paint shall be within the stated specification when determined a minimum 48 hours after packaging the material.		
<u>Weight per Gallon</u> , pounds minimum when tested in accordance with ASTM D 1475 (See Note 3)	Rohm & Haas 13.85 Dow DT 250NA 13.75	13.30 13.20
Note 3: In addition to compliance with the minimum, the weight per gallon shall not vary more than $\pm 0.3$ lbs / gal. between batches.		
<u>Fineness of Dispersion</u> Hegman Scale, min. when tested in accordance with ASTM D 1210	2 min. "B" Cleanliness"	2 min B" Cleanliness
<u>Drying Time</u> , No Pick-Up, Minutes, max. when tested in accordance with ASTM D711, except the wet film thickness shall be $12.5 \pm 0.5$ mils. The applied film shall be immediately placed in a laboratory drying chamber maintaining the relative humidity of $65 \pm 3\%$ , the temperature $73.5 \pm 3.5^\circ\text{F}$ ( $23 \pm 2^\circ\text{C}$ ), and air flow less than one foot (1') per minute.	12max.	12max.
<u>Drying Time</u> , Dry-through, Minutes	120max.	120max.

max. when tested in accordance with ASTM 1640, except the wet film thickness shall be  $12.5 \pm 0.5$  mils. The applied film shall be immediately placed in a laboratory drying chamber maintaining the relative humidity at  $90 \pm 3\%$ , and the temperature  $23 \pm 2^\circ\text{C}$ . The pressure exerted will be the minimum needed to maintain contact between the thumb and film. A reference-control paint will be run in conjunction with the candidate paint. Rohm and Haas formulation will be referenced-control paint.

Note 4: If either the candidate or reference-control paint exceeds the 120 minute maximum, then the candidate paint shall not exceed the dry time of the reference-control paint by more than 15 minutes.

<u>Field Drying Time</u> , Track-Free, minutes max.	2	2
When applied under the following conditions, the line shall show no visual tracking when viewed from 50 feet after driving a passenger vehicle over the line at a speed of 25-35 mph: Fifteen mils wet film thickness Six lbs. of glass beads per gal. of paint Paint temperature at nozzle between 70 to 120°F Pavement dry, pavement temperature 50 to 120°F Relative humidity of 85% maximum		
<u>Directional Reflectance</u> , minimum. when applied at a wet film thickness of 15 mils and when tested in accordance with ASTM E 1347 (Illuminate C 2°)	85	50
<u>pH</u> , minimum. when tested in accordance with ASTM E70	9.80	9.80
<u>Dry Opacity</u> , Contrast ratio, min. when applied at a wet film thickness of 6 to 7 mils and when tested in accordance with FTMS 141c (Method 4121 Illuminate C 2°)	0.955	0.880
<u>Volatile Organic Content (VOC)</u> , max. in accordance with ASTM D 3960	115 g/liter	115 g/liter
<u>Flash Point</u> , closed cup, min.	115°F	115°F

Color: The paint shall meet the color specification limits and luminance factors listed in Tables 1 & 2 when tested in accordance with ASTM E1347 or ASTM E1349. The paint shall not discolor in sunlight and shall maintain the colors and luminance factors throughout the life of the paint. No Bayferrox 3950, iron oxides or other color enhancers will be permitted to achieve the color chromaticity coordinates.

Table 1\*

Color	Chromaticity Coordinates (corner points)								Min. Luminance Factor (Y %)
	X	Y	X	Y	X	Y	X	Y	
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	35
Yellow	0.560	0.440	0.490	0.510	0.420	0.440	0.460	0.400	25

\* Daytime Color Specification Limits and Luminance Factors for Pavement Markings Material with CIE 2° Standard Observer and 45/0 (0/45) Geometry and CIE Standard Illuminant D65

Table 2\*\*

Color	Chromaticity Coordinates (corner points)							
	1		2		3		4	
	X	Y	X	Y	X	Y	X	Y
White	0.480	0.410	0.430	0.380	0.405	0.405	0.455	0.435
Yellow	0.575	0.425	0.508	0.415	0.473	0.453	0.510	0.490

\*\* Nighttime Color Specification Limits for Pavement Marking Retroreflective Material With CIE 2° Standard Observer, Observation Angle = 1.05°, Entrance Angle + 88.76° and CIE Standard Illuminant A.



**Section 981.1 – Page 489 – Delete this section and replace with the following:**

Glass beads for use with pavement marking paint shall be moisture resistant and shall meet the requirements of AASHTO M 247, Type I. The glass beads shall be without floatation properties. The glass beads shall have dual surface treatment consisting of a moisture resistant silicone treatment, and silane adherence surface treatment. The glass beads shall have a minimum of 80% true spheres. Roundness shall be tested in accordance with SD 510.

**Section 983.1 – Page 499 – Delete the third sentence of the first paragraph:**

**Section 983.1 B – Page 499 – Delete this section in it's entirety.**

**Section 983.2 B – Page 500 – Delete this section in it's entirety.**

**Section 985.1 D – Page 506 – Delete the last two sentences of the first paragraph and replace with the following:**

Vertical reinforcement shall be deformed unless otherwise noted and shall conform to the requirements of ASTM A 615/AASHTO M 31 Grade 60 (400). Circular ties, stirrups, and spiral reinforcing may be fabricated from deformed bars conforming to the requirements of ASTM A 615/AASHTO M31 Grade 60 (400). Spiral reinforcing may also be fabricated from cold drawn wire conforming to ASTM A 82 or hot rolled plain bars conforming to ASTM A 615/AASHTO M 31 Grade 60 (400).

**Section 985.1 G.4 – Page 508 – Delete the first sentence and replace with the following:**

Conductor insulation shall be colored in accordance with ICEA S-95-658, Method 1, Table K-2.

**Section 985.1 G.5 – Page 508 – Delete the first sentence and replace with the following:**

Jackets shall be polyvinyl chloride meeting UL requirements for Class 12 jackets and ICEA S-95-658, Section 4.

**Section 985.1 I.1.b – Page 508-509 – Delete the last sentence in the paragraph:**

**Section 985.1 N – Page 514 – Delete the second sentence in the fifth paragraph and replace with the following:**

The flash control circuit shall ensure that remote transfer to flashing from normal stop and go operations occurs during the end of the mainline green interval in the cycle.

**Section 985.1 N.1 and 2 – Page 515 – Delete these two sections and replace with the following sentence:**

The controller furnished shall meet current NEMA TS2 standards for controllers.

**Section 985.1 Q.7 – Page 516 – Delete and replace with the following:**

7. Backplates for Signal Heads: Unless otherwise stated on the plans, backplates may be either 0.050 inch (1.27 mm) thick aluminum or 0.125 inch (3.18 mm) thick polycarbonate. The polycarbonate backplates must be made up from no more than two pieces.

**Section 990.1 – Page 517 – Add the following to this section:**

**G. High Density Polyethylene Pipe:** High Density Polyethylene pipe, couplings, and fittings shall conform to the requirements of AASHTO M 294.

**Section 990.1 A.2.a – Page 517 – Delete and replace with the following:**

- a. Portland cement shall conform to Section 750.

**Section 990.1 A.2.h – Page 517 – Delete and replace with the following:**

- h. Flexible watertight gaskets shall conform to AASHTO M 198.

**Section 990.1 A.3 – Page 517 – Delete and replace with the following:**

3. **Concrete:** The concrete in special sections shall have a minimum compressive strength of 4000 psi (28 MPa). Special sections are those sections of concrete pipe not covered by the class requirement of AASHTO M 170, M 206, or M 207. The strength shall be determined by test cylinders or by cores.

**Section 1010.1 A – Page 519 – Add the following to the end of the first paragraph:**

Bar reinforcement shall be deformed, unless otherwise noted.

**Section 1010.1 C – Page 519 – Delete the second paragraph and replace with the following:**

Dowel bars for concrete pavements shall be epoxy coated and shall conform to AASHTO M 254 Type B except the film thickness shall be from 5 to 12 mils (0.13 to 0.30 mm) after cure. The steel cores shall be plain round bars conforming to AASHTO M 31 Grade 40 or 60, M 227 Grade 70 minimum, or M 255 Grade 75 minimum. The bars shall be the diameter shown in the plans, free from burring or other deformation restricting slippage in the concrete.

**Section 1010.1 C – Page 519 – Add the following sentence after the first sentence of the third paragraph:**

The cut ends do not have to be coated.

\* \* \* \* \*

**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
FOR  
PRICE SCHEDULE FOR MISCELLANEOUS ITEMS**

**NOVEMBER 17, 2011**

The following unit bid prices have been established by the Transportation Commission. These prices will be pre-entered on the Bid Schedule sheets for each project or will establish a standard price to be used whenever no project contract unit price exists for that item.

Each unit price listed is considered full compensation for the cost of labor, material, and equipment to provide the item of work and/or material, complete in place, including (but not limited to) royalty, waste of unsuitable materials, equipment rental, overhead, profit, and incidentals.

Items specified in this document may be paid for on progressive estimates without the benefit of a prior approved Construction Change Order.

Use the equivalent metric unit prices that are listed in parenthesis below the item prices on metric projects.

<b>Specification Section Number</b>	<b>Specification Section Name</b>	<b>Item Name</b>	<b>Price Per Item</b>
5.8	Construction Stakes, Lines and Grades	Three-Man Survey Crew	\$160.00/hour
7.7	Public Convenience and Safety	Water	\$15.00/M.Gal (\$3.96/cubic meter)
9.3	Payment for extra haul of Materials	Extra Haul	\$0.15/ton mile (\$0.10/mton kilometer)
120.5 A.4.	Roadway and Drainage Exc. & Emb.	Unclassified Excavation Digouts	\$8.00/cu.yd. (\$10.46/cubic meter)
120.5 G.	Roadway and Drainage Exc. & Emb.	Extra Haul	\$0.05/cu.yd. station (\$ 2.14/cubic meter station)

120.5 H	Roadway and Drainage Exc. & Emb.	Water for Embankment	\$15.00/M.Gal (\$3.96/cubic meter)
421.5	Undercutting Pipe & Plate Pipe	Undercutting Culverts	\$12.00/cu. yd. (\$15.69/cubic meter)
510.5 D.	Timber, Prestressed, and Steel Piles	Timber Pile Splice	\$550.00/each
		Steel Pile Splices (* All Weights)	Splice made after one of the pieces has been driven.
		8 HP* (HP 200)	\$220.00/each
		10 HP* (HP 250)	\$300.00/each
		12 HP* (HP 300)	\$360.00/each
		14 HP* (HP 350)	\$420.00/each
			Splice made before either of the pieces has been driven.
		8 HP* (HP 200)	\$105.00/each
		10 HP* (HP 250)	\$125.00/each
		12 HP* (HP 300)	\$140.00/each
		14 HP* (HP 350)	\$160.00/each
510.5 E	Timber, Prestressed, and Steel Piles	Pile Shoes (Timber Pile)	\$110.00/each
510.5.H	Timber, Prestressed, and Steel Piles	Pile Tip Reinforcement (Steel Pile)	
		10" (250mm) HP Tip Reinforced	\$120.00/each
		12" (300 mm) HP Tip Reinforced	\$140.00/each
		14" (350 mm) HP Tip Reinforced	\$170.00/each
601.5	Haul Roads	Granular Material	\$12.00/ton (\$13.22/mton)

601.5	Haul Roads	Asphalt Concrete (including asphalt)	\$80.00/ton (\$88.18/mton)
601.5	Haul Roads	Cover Aggregate	\$25.00/ton (\$27.56/mton)
601.5	Haul Roads	Asphalt for Prime	\$700.00/ton (\$771.00/mton)
601.5	Haul Roads	Asphalt (Tack, Flush & Surface Treatment)	\$450.00/ton (\$496.00/mton)
601.5	Haul Roads	Water	\$15.00/M.Gal (\$3.96/cubic meter)
601.5	Haul Roads	Dust Control Chlorides	\$0.35/lb (\$.77/kg)
634.5	Traffic Control	Flagging	\$23.05/hour
634.5	Traffic Control	Pilot Car	\$40.33/hour

\* \* \* \* \*



**STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION  
REGARDING  
STORM WATER DISCHARGE**

**SEPTEMBER 10, 2003**

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In compliance with the provisions of the South Dakota Water Pollution Control Act, the State of South Dakota has been issued Permit No. SDR10####  
“AUTHORIZATION TO DISCHARGE UNDER THE SURFACE WATER DISCHARGE SYSTEM”. This permit authorizes the discharge of storm water in accordance with the conditions and requirements set forth in the permit (copy attached).

The Contractor, by signing and submitting his bid or proposal, certifies the following:

“I certify under penalty of law that I understand the terms and conditions of the General Permit For Storm Water Discharges Associated With Construction Activities that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of the certification.”

\*\*\*\*





Permit No.: SDR100000

SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT  
AND NATURAL RESOURCES  
JOE FOSS BUILDING  
523 EAST CAPITOL AVENUE  
PIERRE, SOUTH DAKOTA 57501-3181

GENERAL PERMIT FOR STORM WATER DISCHARGES  
ASSOCIATED WITH CONSTRUCTION ACTIVITIES

Authorization to Discharge Under the  
Surface Water Discharge System

In compliance with the provisions of the South Dakota Water Pollution Control Act and the Administrative Rules of South Dakota (ARSD) Chapters 74:52:01 through 74:52:11, operators of storm water discharges from **construction** activities, located in the State of South Dakota are authorized to discharge in accordance with the conditions and requirements set forth herein.

This General Permit shall become effective on **February 1, 2010**.

This General Permit and the authorization to discharge shall expire at midnight,  
**January 31, 2015**.

Signed this 31st day of **December, 2009**



Authorized Permitting Official

Steven M. Pirner  
Secretary  
Department of Environment and Natural Resources

*Note – This page will be replaced  
with a copy containing the  
assigned permit number once  
coverage is authorized.*

Full version of the **General Permit for Storm Water Discharges Associated  
with Construction Activities** is available on line at  
<http://denr.sd.gov/des/sw/IPermits/ConstructionGeneralPermit2010.pdf>  
or you may obtain a printed copy from the Project Development office or at the  
SDDOT Area office assigned to this project.



**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**CONTRACTOR CERTIFICATION FORM**  
for Coverage Under the SWD General Permit for  
Storm Water Discharges Associated with Construction Activities

This form is required to be submitted when a contractor will act has an operator and have day to day responsibility for erosion and sediment control measures. Submission of this form shall in no way relieve the permittee of permit obligations. Please submit this form to the following address:

original to: SD Department of Environment and Natural Resources  
Surface Water Quality Program  
PMB 2020  
523 East Capitol Avenue  
Pierre, South Dakota 57501-3181  
Telephone: (605) 773-3351 or 1-800-SDSTORM

Project Name: \_\_\_\_\_ Permit Number: \_\_\_\_\_

Site Legal Location: \_\_\_\_\_

Contractor Company Name: \_\_\_\_\_

Responsible Contact Person: \_\_\_\_\_

Contractor Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

The contractor(s) responsible for the day to day operation of the construction site shall certify the following:

“I certify under penalty of law that I understand and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the project identified above.”

South Dakota Codified Laws Section 1-40-27 provides:

"The secretary may reject an application for any permit filed pursuant to Titles 34A or 45, including any application by any concentrated swine feeding operation for authorization to operate under a general permit, upon making a specific finding that:

*(1) The applicant is unsuited or unqualified to perform the obligations of a permit holder based upon a finding that the applicant, any officer, director, partner or resident general manager of the facility for which application has been made:*

- (a) *Has intentionally misrepresented a material fact in applying for a permit;*
- (b) *Has been convicted of a felony or other crime involving moral turpitude;*
- (c) *Has habitually and intentionally violated environmental laws of any state or the United States which have caused significant and material environmental damage;*
- (d) *Has had any permit revoked under the environmental laws of any state or the United States; or*
- (f) *Has otherwise demonstrated through clear and convincing evidence of previous actions that the applicant lacks the necessary good character and competency to reliably carry out the obligations imposed by law upon the permit holder; or*

*(2) The application substantially duplicates an application by the same applicant denied within the past five years which denial has not been reversed by a court of competent jurisdiction. Nothing in this subdivision may be construed to prohibit an applicant from submitting a new application for a permit previously denied, if the new application represents a good faith attempt by the applicant to correct the deficiencies that served as the basis for the denial in the original application.*

All applications filed pursuant to Titles 34A and 45 shall include a certification, sworn to under oath and signed by the applicant, that he is not disqualified by reason of this section from obtaining a permit. In the absence of evidence to the contrary, that certification shall constitute a prima facie showing of the suitability and qualification of the applicant. If at any point in the application review, recommendation or hearing process, the secretary finds the applicant has intentionally made any material misrepresentation of fact in regard to this certification, consideration of the application may be suspended and the application may be rejected as provided for under this section.

Applications rejected pursuant to this section constitute final agency action upon that application and may be appealed to circuit court as provided for under chapter 1-26."

Pursuant to SDCL 1-40-27, I certify that I have read the forgoing provision of state law, and that I am not disqualified by reason of that provision from obtaining the permit for which application has been made.

Name (print) \_\_\_\_\_  
 Title \_\_\_\_\_  
 Signature \_\_\_\_\_  
 Date \_\_\_\_\_

**PLEASE ATTACH SHEET DISCLOSING ALL FACTS PERTAINING TO SDCL 1-40-27 (1) (a) THROUGH (e). ALL VIOLATIONS MUST BE DISCLOSED, BUT WILL NOT AUTOMATICALLY RESULT IN THE REJECTION OF AN APPLICATION.**





